NASA STI PROGRAM

COORDINATING COUNCIL

Fourth Meeting — FEBRUARY 7, 1991

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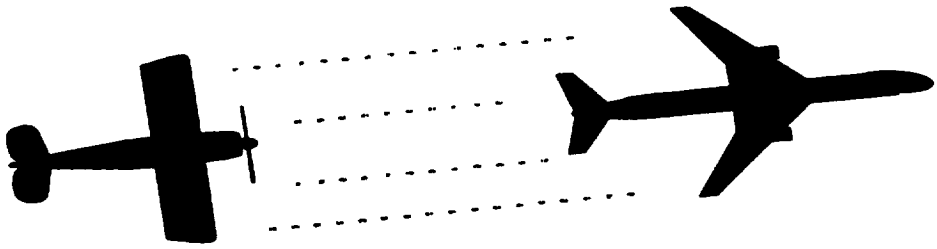
NACA DOCUMENTS DATABASE PROJECT



"NACA is a tremendously important heritage for the Agency..."

Dr. Robert Rosen
Deputy Associate Administrator,
Office of Aeronautics, Exploration, and Technology

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Coordinating Council
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AGENDA

NASA SCIENTIFIC AND TECHNICAL INFORMATION PROGRAM
COORDINATING COUNCIL
MEETING
THURSDAY, FEBRUARY 7, 1991
AT
NASA/HEADQUARTERS/STI DIVISION
CONFERENCE ROOM
CRYSTAL GATEWAY #2, SUITE 1300
ARLINGTON, VIRGINIA

10:00	**WELCOME & INTRODUCTION**	NTT/G. COTTER
	NACA DOCUMENTS DATABASE PROJECT STUDY PLAN	NTT/B. EVERIDGE R. SMITH
10:20	**NACA BIBLIOGRAPHIC RECORDS**	
	AIAA STUDY	AIAA/I. BOGOLUBSKY
	THE OPTIMAL NACA DATABASE	LARC/C. FLOYD
11:00	**BRIEF BREAK**	
11:15	DEFICIENCIES IN ONLINE FILE	AMES/M. WALSH
	DISCUSSION	ALL
12:00 NOON	**LUNCH**	
1:30	**NACA DOCUMENTS**	
	AVAILABILITY	STIF/D. MARINCOLA
	PRESERVATION	ALL
2:00	**NARS COLLECTION**	
	WHAT IS IN IT	NTT/K. VOGLEWEDE
	WHAT TO DO ABOUT IT	ALL
2:30	**INTERNATIONAL ASPECTS**	
	NACA FOREIGN DOCUMENTS AVAILABILITY	NTT/T. LAHR ALL
3:00	**SUMMARY AND ANNOUNCEMENTS**	
3:30	**ADJOURN**	

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LIST OF ATTENDEES

NASA STI PROGRAM COORDINATING COUNCIL
Fourth Meeting
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ATTENDEES:

NASA/NTT -	K. Bajis, W. Blados, G. Cotter, B. Everidge, C. Generous, T. Hermann, T. Lahr, L. Scanlan, K. Simon, P. Sullivan, D. Tuey, K. Voglewede, L. Wassel, J. Wilson
NASA/DBD -	J. Langdon, J. Vogel
NASA/DT -	R. Ridgeway
NASA/ARC -	M. Walsh
NASA/GSFC -	J. Riddle
NASA/LaRC -	C.E. Floyd
NASA/LeRC -	S. Oberc
RMS -	C. Eberline, J. Gignac, D. Marincola, J. Tolzman, P. Young
AIAA -	I. Bogolubsky, P. Marshall, G. Worton
CalTech -	V. Anderson
NTIS -	T. Bold
Redstone SIC -	S.H. Bullock
Consultant -	R.S. Smith

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MODIFIED TRANSCRIPT OF PRESENTATION AND INTERACTIVE DISCUSSION

WELCOME AND INTRODUCTION - Ms. Gladys Cotter, NTT

Since I came on board one of the things I have heard at the user meetings and at the centers that I've gone to is that everyone uses the National Advisory Committee for Aeronautics (NACA) documents. They'd like to have them available in a more efficient manner. They mentioned that the documents themselves are deteriorating. First, we have to figure out the scope of the problem. We have with us today Ruth Smith who is going to lead a study to do that for us. Following this study, we will put a plan of action into place. We should focus on a couple of short-term solutions that can be used in the next year. We want to address the long term issue of how do we make sure that we preserve these historical documents.

NACA DOCUMENTS DATABASE PROJECT STUDY PLAN - Ms. Barbara Everidge, NTT

We're pleased to have so many people from the centers visit with us at this meeting. This is the fourth meeting that we've had, but I believe this is the first one that we've had folks from the centers come in. The American Institute for Aeronautics and Astronautics (AIAA) has been represented before and of course we've had people from the NASA Center for AeroSpace Information (CASI). For those who have not been to a coordinating council meeting before, this is a very open, very free-form forum for discussion so feel free to add as the items are being discussed. This is the beginning of the NACA Project. We expect the whole project to last at least a year until we have finished and come up with the products that we want. The Statement of Work (SOW) that you have in front of you was put together specifically to underscore the work that Ruth Smith is doing as a subcontractor for us. I've tried to outline the NACA project as a whole within the SOW and then kind of narrow down exactly what it is that Ruth is to do for us. The purpose of the project is twofold: one is we'd like to get a definitive bibliography of NACA-documents. When we started looking into this problem, I heard figures anywhere from 13,000 to 25,000 as to the number of NACA produced documents. The number of held documents, those documents not produced by NACA but held in the NACA library, ranged anywhere from 75,000 to 125,000 so the first thing we need to do is get a handle on the size of the collection. One of the end products we'd like to have is the definitive bibliography of everything that was produced by NACA. Since it is a closed set, we ought to be able to get a handle on it. It is very difficult because with different groups holding there own collections we don't know how much of an overlap there is. It is not just a matter of adding up figures. In addition to coming up with a definitive bibliography for the NACA collection, we want to be able to get a handle on the collection itself so that we can provide the bibliography and then also provide the documents to those users who select something from the bibliography that would be useful to them. Essentially, that's the purpose of the whole NACA Documents Database Project as it is outlined. What Ruth is attempting to do in the beginning is to find out

where we stand, how much do we already know about, how many citations for the NACA collection are in machine-readable form, and do those records follow any standard form. There's been a lot of discussion about the NACA database that's up on RECON because it is considered to be less than optimum quality. What could we do to that database to bring it up to a standard that would serve our users? What additonal citations should we put into it? There are Headquarters Library shelflist cards at the CASI that have never been put into the database. What should we do about that, and so forth. One thing I want to call your attention to is the definitions in the SOW. When we started talking about the NACA Project I thought that it was important to come up with terms so that we're talking about the same thing. If you notice, a NACA document is a document produced by and for NACA, in other words, that would be something that would say NACA on the cover. Non-NACA documents are those that are held by a NACA library but are not produced by NACA. Nearly any kind of publication could be considered a non-NACA document. I have tried to define exactly what is a NACA document, so that we have a reasonable definition of the NACA collection. When I talk about the archive, that's the documents themselves, as opposed to the bibliography and the database of course is the electronic surrogate to the NACA archive. There are a number of people within the Division that have interest in that. John Wilson's interest is getting the electronic database completed. In other words, the information that has not been entered into the database needs to be entered so we have as complete a file as necessary. Dick Tuey and Tom Lahr are interested in getting the CD-ROM product out. Kay Voglewede is interested in the archive, the documents themselves: Where are they? How do we get a handle on them? How do we distribute them to the users? The Division believes the best thing to do is pull all these concerns about the NACA collection together into one particular project and work through this in a reasonable way. As you go through, you can read the background and our nine requirements. Now please keep in mind that these requirements for the entire project are not necessarily what Ruth is doing for us, but Ruth is doing an analysis of where we stand now and will give us some direction toward meeting these requirements and will also give us some recommendations as to how we should proceed to get these requirements met. Then there's of course a set of milestones and deliverables too because this is a SOW. Very briefly, that's how we got to where we are now. According to the calendar, we're essentially in the middle of the study but as studies go, of course, we expect this to be extended. We thought it was important to get this analysis done and a definition of just how large a job we have accomplish. We then need to plan from now on through the year to bring the database up to par, to define the collection, to locate the documents, and so forth. This preliminary work needs to be accomplished, until we get to a place where we can put the bibliography on CD-ROM, and, perhaps, even the documents themselves on CD-ROM. Ruth is going to take some time now to explain her study plan and what she is going to be doing at the beginning of this project and then we have a number of people who will talk about the NACA situation at their own centers. As I said, this is an open forum so please feel free to jump in anytime you have a comment to make.

STUDY PLAN - Ms. Ruth Smith, NTT Consultant

The first thing I had to do was to come up with a study plan. It's a good idea whenever you start on anything is to plan how you're going to do it. And that was the first deadline I met. The first thing I needed to do was to complete a survey of the centers to find out who had what, where it is, how available the collection is. I also was working with Patt (Sullivan) to set up this meeting. We developed an agenda for discussion at this meeting. When I was thinking about that, I thought these things fit together so that's how the questionnaire began. It began really as an informal list of questions that I was going to send to you to become prepared to discuss at this meeting. I thought this is a wonderful way to collect some data that I can then compare. If each one of you supplies the same kinds of information we can put it together and make some kind of summary out of it that makes sense. I might say that every one of the centers has been most cooperative and most helpful and very responsive; that has made my job a lot easier. In addition to all the NASA centers and the NASA-related centers like the CASI and also AIAA, I sent the questionnaire or a similar one to a number of people who are not NASA-related but who have access to the NASA/RECON. This included a number of commercial contractors like General Dynamics and Raytheon. I've got the list with me of all the people that I sent it to. There are probably about 18 or 19 all together, including some universities. Of course, the stellar university on that is CalTech. I think they report they have all the documents and I'm curious to find out all the things that they've got. If they have all the documents, then our job is a lot, easier than we thought it was going to be. I wanted to say thank you for the response that you have given me on the questionnaire. As soon as I have a few more of the responses, which are still coming in I should have a summary finished soon. Part of the purpose of the questionnaire was to survey the user requirements for the bibliographic database. I received some marvelous suggestions and comments from all of you. I think this will be fun to share with NASA when I put together the final report. The final thing I was to do was to look at the archival responsibility for "the collection," to see whether the collection was all in one place or distributed. It was interesting to me to go through a report that the archives had put out in 1972 that Joe Gignac gave me. It is amazing the things that they need in order to access the documents: you've got to know the box number, the series number, and the location. They do have an awful lot of material there. My final report is to be submitted by the end of March. I'm hoping to get it finished before that time and with the help and cooperation of you all, we will.

AIAA STUDY - Ms. Irene Bogolubsky

I have four areas to discuss. Basically, they are definition of the NACA collection, the value of the NACA collection, the issues that our study has raised, and what should be done. We're talking about the NACA historical file. Now what is the historical file? In our opinion, it can be divided into three distinct parts. The NACA formal series, the non-NACA formal series, and then what we consider purely historical material. Now the NACA historical file, right now, online, I understand, is composed of about 100,000

records or a little bit more. The remaining NACA material consists of another 75,000 to 85,000 records. The formal series includes the TM's, the TR's, the RM's and so forth. And then the non-formal documents, which are from a variety of countries. At least from what I've seen, there's some from England, and France, and Italy, and Scandanavia, and others. Those again are the reports in the technical series or whatever and the rest from what I've seen is composed of a variety of things. There are items like a Bureau of Standards Bulletin that simply lists instruments for measuring that were used in 1918. There is no question that the NACA collection is valuable because our library has continuous demand for this material. Everybody I talk to says "ah, but we use it." People want it. They need it. We have been told by users in the aerospace community that this material is of considerable value because air is still air and the NACA material, what I call the formal series, represents relevant basic research. Now the questions of completeness. I don't think anybody really truly knows exactly what the size is of the NACA formal series. It's very important to have access to the original documents. Original documents are needed for a variety of reasons, the least of which is to update the records that are already in the file because they really are not complete. Also there is some inconsistency in those records and it then becomes necessary to look at the original document. If the additional 85,000 records are added, my information was that sometimes all that is available is a catalog card. For those records that are already in the file, the searching is somewhat difficult because, for example, the number of fields in each of these records was limited. Because of this, certain fields or certain elements of the record contain such a multitude of information that it really is difficult to do the searching.

SYBIL BULLOCK. You mentioned the lady from the California Institue of Technology (CalTech) saying she had twenty requests per week. I would like to ask her how did they ask for them commercially. Did they have a citation, did they copy from a journal, a tech report, or what?

VIRGINIA ANDERSON. Yes, seldom by subject term.

SYBIL BULLOCK. So it's critical to know how people are asking for these because there is no need to develop a new one. You know, how people are asking for information.

IRENE BOGOLUBSKY. Well, people ask in different ways. In our library, they may ask by a number, by the author, by the title, by whatever, and that's why it's so important to have all that information there complete and accurate. For example, when I was looking through this I found that for just the TN for technical note, the five or six variations in the way its given. It's given as "technical note" spelled out", t.n." and so forth. You really have to spend some time having to find something or have a little imagination. Now also the records are not in the NASA Thesaurus. I'm not saying that

the subject terms used there should be eliminated, not at all. They should be retained but it would be very helpful if the records were indexed according to the current Thesaurus.

JOHN WILSON. We're running the Machine Aided Indexing (MAI) program at CASI.

IRENE BOGOLUBSKY. But have you noticed that some of the terms that are with those records, they're sentences, they're not one-word terms.

JOHN WILSON. What ever the terms were on the card that's what was keyed.

IRENE BOGOLUBSKY. Is that in progress?

BARBARA EVERIDGE. The MAI programs can take a phrase or sentence and parse it so it understands what the sentence is saying and then select unit terms. We're using NASA's MAI as well as Defense Technical Information Center's (DTIC) too. It would read the whole sentence and pick out words depending on how they relate to other words and then sometimes you have to do a post-MAI edit. It gives you a starting place.

DIAN MARINCOLA. I think it was in September 1949, they changed the subject categories and they issued a notice to everybody to redo all the catalog cards. But that's an interesting problem you have on the subject terms. Really, from the NACA catalog cards you might have a division using one authority list and some using another but we do have those authority lists.

CAROLYN FLOYD. Do you have the listing of NACA subject headings? We have it at our center.

DIAN MARINCOLA. Yes, we found a copy of it buried and we also have the new ones. We have the older one too, along with a lot of administrative notes from Langley because they took over the cataloging in 1947 from Headquarters, so we have a lot of that information that will assist in the machine aided indexing effort.

IRENE BOGOLUBSKY. It is interesting because when you look at these records you see the needs buried over the years and you see what's in there and all of a sudden something else appears. Yes, it is really interesting. Now for the future: There are several things that could and should be done. There is already something in existence. The NACA historical file should be upgraded, there is no question about it. Records should be completed and standardized for better access. The NACA file would be given visibility and better use if it were added to the aerospace database. Everybody says we want the material, it's current, it's pertinent, we want to use it. Based on user feedback, it is the NACA portion proper that is the most valuable. For the future we need to save it and to make it accessible in a format that is not going to deteriorate the same way paper does - perhaps on CD-ROM. Now there is in existence a set of microfiche which

is close to 14,000 records. I don't know whether its complete or not; you say it is. But maybe that CD-ROM should have the bibliographic information so that searching would be feasible and enhanced by full text microfilm, or full text should be put onto CD-ROM, because how long will the microfiche survive? It also has a limited life. It seems that as a result of what we have done, priorities have been established. From experience we see that sometimes projects that are considered very important are subsequently dropped: either funds are not available for the whole thing, or time runs out, or whatever. It seems that it may be most practical to address ourselves first to the NACA file which everybody says is so valuable. Or, at the same time, should consideration be given to the additional records? Again, whatever decision is made, responsibility should be assigned to specific individuals who are better qualified in certain areas. A schedule should be established. That's very important. And one thing, before any kind of work is done on this, standards should be decided upon. A style manual should be made and everybody who's using this material or is providing service should participate in preparation of that. Otherwise, time and money can be wasted.

SYBIL BULLOCK. This is very timely for us because we at Redstone are getting ready to put the NACA documents that we have into our in-house computer system. We have the Scientific and Technical Information Library Automation System (STILAS) which is a type of computer software that NASA Langley also has. We're already inputting into DTIC cataloging records using their standards so we know from the Army side of the house how to do it. What we have to do is learn from the NASA side of the house since we support both Marshall Space Flight Center and the Army. And we don't want to do it only once. And we have the staff who have enough training to know how to do it right. We do have a contract in place to begin this summer to start putting those documents in electronic format so we really would like to participate in this and to offer our support and any products we produce in electronic format to the whole system. In fact, we're willing to give manpower to participate in this. We think it's important. The DTIC model has worked very well for us with each organization inputting their cataloging of their records into a system, so we know the model works and we're willing to participate in providing people to do that.

IRENE BOGOLUBSKY - That's great. Because it is important. Like for example the way the database is designed. The NASA/RECON system has been designed as a fantastic intelligence tool but for whatever reasons it has never been used to complete capacity; still it's fantastic, but even though it's so good, over the years we have observed certain areas where improvements can be made. We have user feedback, things have changed. Publishing practices have changed. The kind of information that's available is different and presented differently. There's constantly need for upgrading. We have been looking at the overall database lately to see what can be done to improve it based on user feedback. All of this can again be implemented in the NASA Project.

SYBIL BULLOCK. The NASA/RECON database is our database of choice for our NASA users, as DTIC is for our Army users. Our system can directly put records into

the DTIC system, and with a few turns of the screws it could do the same thing in NASA/RECON directly from the local catalog into that database.

IRENE BOGOLUBSKY - Did you say something else you said before, how do the users request information? All of these things should be part of that decision for a standard, a common standard, and it's absolutely necessary. It's fine to have imagination, but you want to get the use from this material right away and not everybody wants to sit down and try to figure out which way to go. I don't want to use the words-play games.

SYBIL BULLOCK. Well, we constantly survey our users to find out what they want, and what they tell us they want in our last survey which was done about three months ago is full text. They want information delivered to their offices, they do not want bibliographic citations, they do not have time to come to the library, they do not have time to do that, so we have to find a way to deliver information and we're getting ready to set up a combination courier and electronic transmission because some of that stuff will never be in electronic format full text but we have to provide them that because that's why we're there.

IRENE BOGOLUBSKY - Well, you know, actually I really haven't looked through all the records because it is a little bit difficult to handle that collection but I don't even know if all of the items, the core, have an abstract. I really don't know. So what if you get on a citation that's not so complete? You need it for somebody who doesn't want to see the full text right away.

GLAYDS COTTER. If you modify your STILAS system you can input directly into RECON. Langley has STILAS also. Is that module or function transferrable to Langley also?

SYBIL BULLOCK. We have the same software. We have the same capabilities and the plan was to do that with RECON II. You have to wait and see what the end product's going to be before you can design that interface between the two computers but it's perfectly doable and it is on the plan for us to do that.

GLADYS COTTER. That might be an area where, resources permitting, we would want to look at the comparability of the two systems to take advantage of their capability.

SYBIL BULLOCK. I agree with that. Do it one time and do it right and get it to the world. You can do things spread out better than you can one centralized place getting one thing funded. The model really does work.

GLADYS COTTER. The other thing that we'd be interested in is to see your library survey.

SYBIL BULLOCK. I have a copy of the survey somewhere. I have a contract this summer to put that in the computer to give the statistical analysis of what we found. We did a quick and dirty thing and basically our users told us they wanted the information delivered full text. That's what we'll find when we do the formal analysis. And they liked CD-ROM. We have the new Jane's and we can't keep enough stuff in it for them to use that.

BARBARA EVERIDGE. There are a couple of questions. You're going to have your contractor put the citations for the NACA documents into your system? Then do they attempt STILAS conversion into DTIC?

SYBIL BULLOCK. Well it can if the record..we haven't even explored how to deal with that process. I did a check of the DTIC database before I came to see how many NACA documents I could identify because we do have to search both places for our people and there were a number of documents in there, NACA documents. There were some problems with pulling them up by number but there are problems there because of consistency of input. There's a possibility to send it up both pikes if that were needed.

BARBARA EVERIDGE. How do you have your database set up with your STILAS? DTIC requires certain fields.

SYBIL BULLOCK. We would have to modify these records to fit that. We're using COSATI and it works very well for us, we're very comfortable with that. In NASA/RECON, we would have to follow the route that you talked about with your thesaurus. That's one of the problems we're having with merging our NASA records and our DTIC records. We can do that with the system but we haven't quite figured out exactly how that's going to look. We're doing it piecemeal. We don't want to just jam all this together.

There are some problems but there are also ways to deal with this that can help the process and there are other libraries that have the STILAS. I don't know if there's another NASA library, but the Air Force Weapons Lab has it. They have a large NASA collection. And there are others that are looking at it.

GLADYS COTTER. It could be really interesting because we were just saying that since CASI has the subject-switching program -- DTIC to NASA terminology, we might be able to run the records through MAI.

SYBIL BULLOCK. I'm interested in anyone who already has material in electronic format. We might be able to use that.

CARL EBERLINE. I would like to get a copy of the STILAS format on tape because it might not be that difficult to make that conversion to the STIMS database. We would

not have to wait for RECON II or anything else. Because once we convert it into the STIMS, which is RECON, we will be converting everything anyhow. If I have copy of what that record format's like, we may be able to do that without a lot of difficulty. We could also take a look so we can make sure that we're doing things that make things more compatible and easier for everybody.

BARBARA EVERIDGE. We talked about a need for standards. Evidently what's in the current database is strictly what was on the cataloging card according to whatever standards existed at the time of preparation.

SYBIL BULLOCK. Ours were done by so many different people, when I looked at them, they were piecemeal.

BARBARA EVERIDGE. The policy when those original cards were data entered into the database was "type what you see." If there's a typo, it doesn't matter, just type what you see. If we're pulling things down from DTIC that's already in COSATI format, do you have a ballpark figure of how many entries that is?

SYBIL BULLOCK. I could only identify -- and this was strictly non-statistical with a ruler measuring catalog cards -- about 5600 that had NACA as a corporate source. We may have others scattered about that I didn't have time to find.

IRENE BOGOLUBSKY - That's why I think it would be absolutely necessary for a few people, a small group, to get together, those people who have looked at the file, who are working with the file, who have feedback, who have already analyzed these things so that some format can be determined and some of these things that can be done globally by a program could then be implemented.

THE OPTIMAL NACA DATABASE - Ms. Carolyn Floyd, Langley Research Center

The full text database with graphics should include pictures, tables, charts, line drawings, and perhaps some figures. Cybil mentioned the Jane's products. We have seen a demonstration of Jane's All the World's Aircraft on CD-ROM with the figures and pictures, and it's a pretty good product. The definition of the NACA collection is fairly consistent with the year range, 1915 through 1958. However, I must mention at this point that there are some documents beyond the 1958 time frame in the NASA file T and we did a scan of the database and there are many NASA reports in that database. After we retrieved about a number of about 4000 NASA documents in the NACA database, we wanted to find out how many of those records were actually in file G. About 50% of the records found in file T are in file G, so you have some NASA TND and TMX, etc., found in file T that are not in file G; therefore, if you are looking for some of those earlier NASA reports, you may try the NACA collection online. The content of the NACA database should give us a historically accurate representation of the NACA collection. These items are from international sources. They consist of

variant document types, and, of course, subjects. Most of us are familiar with the subject coverage of the NACA collection. Since there was a question during the first presentation on the definition of formal versus informal reports, I don't know if anybody can really give a true definition but I happen to have with me a list of some of the NACA reports and what we call the formal publication series. You may have heard the questions about these types of reports but I think this is an overview of the NACA type reports and some of them could have been contractor-produced during those early years.

JEAN TOLZMAN. When you use the term full text retrieval, do you find that your users want retrieval through the full text that includes each term?

CAROLYN FLOYD. Maybe not each term. Of course, you're going to have some stop words, but it should be a full text database. You should have the full text of the reports online. Now I am not saying this would be part of RECON -- I think with RECON we would access the bibliographic references and abstracts -- but this would be a good CD-ROM product.

JEAN TOLZMAN. On CD-ROM you can do images of the pages themselves electronically and provide alternate search and retrieval; thus each record can be as full as you want it to be.

CAROLYN FLOYD. Now our users have asked over the years, or at least 5 or 10 years ago, they were asking for the full text of documents online. They would like to work and have them accessible through a network environment. They would like to sit at their desks, in the interest of time and money to the government, and instead of having to come to the library to retrieve a hard copy from the stocks, they would like to be able to scan the report from their desks. That capability is here. This is just a requirement that the people, especially some of the lead researchers, have been requesting over the years.

JEAN TOLZMAN. ... which is electronic delivery. Do they need to search each word that appears on every page?

CAROLYN FLOYD. Of course, normally you have stop words and retrieval of information and I don't think anyone will go online and put in verbatim every word but you would want the full text of that document to be available. They can access it by subject, by key data elements such as contract number, or phrases. You have to set up a structure for your access vocabulary. Also airplane types, for example. It depends on what you put into the vocabulary to access it as full text. And you may want full-text retrieval on a broader basis. It's up to the NASA community to decide on what to do and this includes the people in private industry and the academic community as well, to set up these guidelines.

BARBARA EVERIDGE. The end users want the full text document. Whether they are searching the surrogate record or whether they are doing full text indexing, I don't think

it will make a difference to them as long as they get the information they want. I think it depends on how thoroughly we index or create the surrogate record and that depends on what standard we want to choose.

DIAN MARINCOLA. I think it also goes back to how users are asking for the NACA reports. At least at CASI, they usually ask by the title, report number, or infamous end number.

CAROLYN FLOYD. There are a few who ask for material by subject. and it's our job to present what is available to them.

DIAN MARINCOLA. I agree with you, Carolyn, but I think for the question of whether we should index all the full text or just the surrogate record, the users can probably tell us based on how they ask us for the reports. If they ask us some very vague questions that we know relate to the NACA collection then we really need to have a full text online and retrievable but they're specific and it's a static collection. If they're very specific and say look, I know it by N number, or by author, or by title, then that gives us some information to base a decision on. They may want the full text online but do I really have to index it all? Can I just have electronic delivery? I think the group in here can answer it better than I can. From CASI's standpoint, the users ask very specifically for what they want and very rarely is it a full bibliographic search. It's usually one specific report they are looking for by a specific author.

CAROLYN FLOYD. Well, many times they ask for information on a very general basis and they want to look at multiple related documents. Not that they are going to sit there and read the entire document online but they want to call up those associated documents or related documents and scan them and then be able to target in on bits and pieces of information within that documentation to pull their full storied reports together. In reference to the NACA collection, it is sort of the core of the NASA report literature. Many of the people, and I'm going to get into this later, are using the NACA report literature as a foundation in their classes at some of the universities on a graduate, post-graduate, and under-graduate level.

MARY WALSH. I think the reason that CASI is not seeing the same kind of questions is that we have weeded out by subject and we've given them that information, and so they are only down to reports that they need.

DIAN MARINCOLA. I think this question is still on the table as to whether ... at least so far we want full text. The question is whether we index it or not. And I don't think we need to go into further discussion. It's just an issue for a smaller group.

BARBARA EVERIDGE. The other thing we might keep in mind is that bit-mapped images are a lot cheaper to produce than full text so if we can come up with this surrogate record that will serve 80% of the requirement, when you offset that against the

difference in cost in producing a CD-ROM bit-map versus full text, our decision may be made for us.

SYBIL BULLOCK. Not only that, you've got to deliver this information over local area networks and we're tied into what our particular local area network happens to be able to handle, with shuffling large amounts of text across that. There are other issues with local environments.

CAROLYN FLOYD. Getting back to the optimal NACA database, we know it's not here, we know it's going to be a long time before we get to this point. Also the contents should be comprehensive, as comprehensive as possible. There are some publications that many of the NASA libraries may have already have and I'm going to mention a few that we have taken a look at and that have been in our collection for many years. The Work Projects Administration out of New York worked in conjunction with AIAA and AIAA had another name many years ago, the Institute of Aeronautical Sciences. And they published a series of aeronautical bibliographies with subject content and it's a 50 part set. AIAA published an early version of the engineering impacts and I believe that was from the '30s through 1958. That's what we have in our collection. Then you have to look at the work that Paul Brockett did when he was assistant librarian of the Smithsonian. He published a series of bibliographies and many of them are under the NACA heading as well. There's probably considerable overlap but it will be worth looking at these items to see the level of comprehensiveness, and a lot of the items will cover the open literature as well. The NACA collection includes documentation from Germany, the Netherlands, Spain, Italy, France, Australia, and areas mentioned in Great Britain. These items represent publications from private industry, government, and academic institutions. Irene mentioned some of the document types and I probably missed out on some but some that I picked up on when I scanned through a series of our NACA collection cards are technical reports, journal articles, and translations as well as pamphlets. Some of these pamphlets could be glossies or just open type literature or advertisements. The subject coverage is more extensive than this but there's an example of some of the subjects and many people are continuing to ask for some of this background information. Dian Marincola indicated that they have the entire NACA subject headings list that we've used at Langley in the past at CASI. The data elements that would be desirable in the bibliographic records are listed above and I think a proposal was written in the early '80s. Those are some of the suggested data elements that one would like to see in the optimal NACA database: representive bibliographic records. Then of course there is the issue of standards. We have the COSATI or CENDI guidelines. They are supposedly used by many federal libraries and we are most familiar with DTIC guidelines and the NASA guidelines that are used at CASI. While looking at the formatting of our bibliographic records for documents, we have had an opportunity to see how varied the interpretations are of the CENDI guidelines. DTIC's guidelines are more extensive, their records require more detailed data elements whereas the NASA reports do not. We have been trying to conform to the NASA standards so that when we interface to dial-up, it will be easier to talk to RECON via STILAS and

have records overlayed that are brief at this time. I think we have been waiting for that interface to develop and I'm sure a lot of decisions had to be made about RECON before anyone could go forth with a lot of programming activity to get this situation to work out.

BARBARA EVERIDGE. Before we leave this topic there is one thing that this group in particular needs to consider: whether there are other data elements that you'd like to see here and whether you might think that some of these are not necessary. Of course, my other question is how does this proposed data record compare to what we have. When we were talking earlier about subject terms and the difference between the terms that are there now and the controlled NASA Thesaurus, would it be beneficial to have more than one subject term field the way DTIC has subject terms identified. You can carry the original ones in, maybe, as identifiers but then use the current NASA Thesaurus as the definitive subject authority and have a separate field so you could search one or both.

SYBIL BULLOCK. We should consider whether we're going to make this for access as well as identification. We have to know where this document exists so that we can get a copy of it. Unless you're going to do full text and have it available to everybody. There's nothing more frustrating than to have the user find something that you can't get them a copy of.

CAROLYN FLOYD. Since you brought that up, and I think that's going to be discussed later by Kay Voglewede, that ties into the National Archives situation. I have a story to share with you that I think will be very disturbing to you about trying to get material from the National Archives and I think the NASA library should really try to hold on to their documents as an active collection. I can't count the number of requests we are getting for NACA documentation. I was on reference duty for one day and there were six or seven requests that came across the phone lines, and at least one was from private industry. We constantly get requests from private industry, academic institutions, and CASI refers people to us too. It's a very, very active and useful collection. The quality control of the database is a very important issue. If at all possible we should try to minimize the mis-spellings, the typographical errors, and we would like those problems to be avoided altogether because it does impact your information retrieval. The current database can be cleaned up. This especially impacts the retrieval of your title, your subjects, your phrases within the abstracts, and those are some of the pertinent data elements. Consistent data entry standards and guidelines are needed. This doesn't apply only to subjects. It's applicable to corporate source, authors, report numbers, and contract numbers, and I think we can see this across the board. It's not anything that's pertinent just to the NACA collection. And we've also mentioned standards and guidelines. If we try to set up specific standards and guidelines for items that have already been cataloged, you have a major task on your hands. It may be very difficult to validate these subject headings against an authority list such as the corporate source. You've already heard that the NACA collection should be available from RECON and

in CD-ROM format. We are thinking that access to the collection on RECON could be restricted to the bibliographic citations and abstracts. On CD-ROM, the ideal situation would be to have the NACA collection in its entirety -- which will mean pulling together the aerospace literature that was published by Brockett and the Works Progress Administration out of New York and I don't think it exists any longer. Pulling all of those items together and it will require a lot of work. It will require time and it will require expertise. On RECON, we know that the format for RECON has been established so accurate bibliographic access and abstract access would be good to have. The full text database on CD-ROM again should have graphics included. Cause those charts and line drawings, the pictures of aircraft and other pictures and structures are very vital to researchers.

SYBIL BULLOCK. That's one of the problems with the Jane's. The only one that has illustrations is All the World's Aircraft. The weapon systems, they did not include the illustrations. It really cuts into the value of the database not to have the illustrations.

CAROLYN FLOYD. Well, we're planning to require the Jane's all the world aircraft on CD-ROM primarily because of the graphics, and ideally it would be good to network this version. The CD-ROM situation could be network in reference to the optimal database. I have talked to several users of the NACA collection, including scientists and engineers and some of our professional librarians and managers and the general consensus is that the NACA reports are unique. They have a lengthy life cycle as Ad pointed out to me, and her experience is that when she was at Goddard, usability never diminished to zero and I can say that's true at our center as well. On the survey there's a question about the usage of the NACA collection and I think you addressed it on a monthly basis.

RUTH SMITH. How many times a month do you search the file.

CAROLYN FLOYD. More than 50. Again, we get requests from people other than NASA Langley personnel and that collection is very active. I talked to one scientist who's been at NASA for many, many years and he pointed out that several of the professors from Virginia Tech, George Washington University, and other engineering schools used the NACA collection for foundation-type information. The NACA collection includes theoretical development. It continues to be referenced in specific applications. From the theoretical standpoint the information is just as valid as it was when it was published. It includes laws of physics and mathematics which have not changed and, again, it's useful for learning purposes. It refreshes one's memory with regard to what was done years ago. You don't reinvent the wheel and it's costly to reinvent the wheel. Comparative studies are included in that collection. I've already pointed out that this collection is used within the academic community on all levels including the post-graduate level. Therefore the planning and execution of this NACA database is extremely important and I think it's extremely important on a world-wide basis. It's my understanding that some of the reports in that collection that are from Great Britain may not even be available from them. I glanced at some of the cards and

records that we have on that NACA collection and I found that many years ago, some of the reports were destroyed, but not all of them, and many of them, I assume, have gone to the National Archives and it's extremely difficult to get, in fact it's impossible to get some items from the National Archives. You will be charged a fee, there would be an extremely lengthy turnaround time and the request has to come from a high official from your organization. I know the specific situation when they wanted to charge about $450 for NASA to get a report because information was needed by a researcher to look at the shuttle tile issue. The minimum turnaround time they promised was 3 months -- and you know how critical that problem was -- so we need to conserve and hold onto as many of those reports as possible because we may not get them from the National Archives in a timely and cost-beneficial way.

JOE GIGNAC. Assume that we could identify that which the Archives has, why would it not be possible than to pull the collection back entirely?

CAROLYN FLOYD. There is a public law.

JOE GIGNAC. In light of new technology perhaps we can justify its return in order to make it more useable to the aerospace user community.

CAROLYN FLOYD. Well, if the letter comes from the NASA Administrator, maybe it'll work.

BARBARA EVERIDGE. One of the things I'd like to bring up along this line is that this is an executive summary of our IRM office notes from December 6, 1990 and it says the National Archives has sent NASA final approval to transfer the NACA collection currently located at Washington National Record Center as of 1992 and what I'm hearing here is that once the archives gets it, it's essentially unavailable to us.

KAY VOGLEWEDE. What is being transferred to the Archives is only a very small part of this whole collection.

BARBARA EVERIDGE. But none the less if it's unique, if thats the only copy of those particular documents that we have, we need to do something before 1992.

CAROLYN FLOYD. I'd like to finish this presentation by saying the NACA collection is still used, is still needed, and there is really no justification for storing the material -- encaving it -- indefinitely. That is what will happen if some of those reports go to the National Archives. What is the benefit to NASA if the material has been taken away from the researchers. Thank you.

DEFICIENCIES IN ONLINE FILE - Ms. Mary Walsh, Ames Research Center

I'm glad this meeting is being held. I only feel as though it's about 20 years overdue. I agree with both Irene and Carolyn in their estimation that at Ames this is also a very vital active file. It is by no means a dead one. However, it is dying. These are actual reports. This is one by Hugh Dryden, this is one by R. T. Jones two of the top researchers that NASA has. They're in daily use because the things at that time were theoretical possibilities such as forward swept wings. Now with composite materials we can actually do it. They're coming out of the theoretical and into the experimental. The problem is, at Ames, they can't get to these reports. We didn't realize at Ames that we might sometines be the only place that had these documents because we kind of all relied on Langley to have everything in-house. I'm not sure that Langley has managed to keep everything. I know that at Ames, we had free access to our documents until about 3 years ago. I might have all the NACA documents but they may be in everybody's office all over the center and I may never get them back again. We'd like to do something about this. The online file that was brought up is a very good start. There are some problems with it, some of the problems have carried over from the cards themselves, some of the problems developed I think from the speed with which the file was put up. The completeness of the file is unknown and that relates back to the fact that the completeness of the NACA documents is unknown. Not just NACA but everything else that was in the Langley shelflist which is what we have. We are very lucky that when Ames started, Langley sent us a duplicate file of their shelflist so we have that and we use it heavily. How file T compares to that shelflist I'll get into in a little bit. The NACA records are also in other RECON files, not just file G. There are also NACA records in file N. The indexing is unique to the file and it does go along with the old NACA indexing. However, I agree it should also have a overlayer of the new NASA Thesaurus terms put on top of it. We don't want to lose the old indexing terms, some of them are very specific, but we need those new indexing terms in on top of it. The mnemonic search is sometimes unique to the file. There is inconsistent field entry in the file. The restricted document status is unknown. This is something that no one else has mentioned yet but it's something that my reference staff wanted me to make a big point of. We have people who are desperate to get their hands on a 1942 document. The darned thing says it's confidential. They say it can't be confidential, it's 1942. The only way we can verify that is by going back to the original office and the users of course do not want to wait for that. I think something needs to be done -- obtain a blanket printout of everything that the war office ever did, send it over to whatever their successor is, and say are these still classified -- because right now it seems like everything our users want of interest is classified.

GLAYDS COTTER. Is that an action we could just put down to at least address that issue?

MARY WALSH. If they could do a sort by corporate author. It has to get back to the corporate author and the corporate author is the only one who can release it.

JOHN WILSON. We have the file itself being classified. But the documents themselves -- some of the corporations don't even exist anymore but nobody else will make a decision concerning these dated documents.

CAROLYN FLOYD. The British restricted items are treated as confidential and it's very difficult to know what the true status is. We may never know.

GLADYS COTTER. But at least the ones in this country it seems like we can find someway to identify their classification status.

MARY WALSH. ... I'll talk to our security department about it. Dian had mentioned -- when she gets back you could ask her but there has been a blanket letter declassifying materials. When I mentioned that to my security man he started laughing and says that doesn't work.

JOE GIGNAC. That blanket letter was only for the shelflist cards.

SYBIL BULLOCK. Were these documents produced by both government and private industry?

MARY WALSH. Private industry I haven't noticed so much. It's mostly the government and the British that I've been looking at. This is another whole area that needs to be looked at.

DIAN MARINCOLA. The authorization that I was able to find in the collection was something from Headquarters saying Headquarters declassified the shelflist and anything it produced. I was able to find the letter of authorization from NASA Langley saying any document that had classified is now declassified with the exception I think of about 12 reports. What we don't have from Lewis or from Ames 13 anything on file that says that their particular reports are declassified.

MARY WALSH. It's just one of those things that nobody has gotten around to doing. I think they need to have some quick movement. If we can do a sort then...Because right now if we tried to do it at Ames, I'm not even sure I have on the shelf the stuff that needs to be declassified. I need to have a list sort of what Ames had produced which may be missing in my collection already.

DIAN MARINCOLA. Well, we might be able to help you out in that respect.

MARY WALSH. That would be good. Typographical entry errors for the subjects are the things that occur the most. As for the completeness of the file, it's unknown. Since we don't have the list that they're working on at the CASI this is what we were saying. Here's the Langley catalog, we're not quite sure how big that is, and this is file T. Now Dian spent some really dredging work, she must have been down on her hands and knees at CASI, got 111,000 items in file T but we're not sure if that's 50% of the Langley catalog, 92%, who knows. I'm really glad that we're having this meeting because I feel like we all have a piece of the elephant and maybe if we all work together we can put the whole thing together. What we're finding is that although everything in file T is in the Langley collection there's also things from Langley in file G and file N and I'm not sure that they're reflected in file T as well. I don't know if any of those 3 files overlap each other. Somebody said there was some overlap between file T and G. This for example is an expand in file G and you can see the NACA documents there. I didn't bother redoing for N but trust me. The same expand would work in N as well. The indexing is unique to the file. Somebody was talking about phrases. "Instruments for testing and research for aircraft. A real catchy little phrase." We also have a printout from the shelflist itself that shows you also some of the types of indexing available here. We're not sure if, when the directive went out in 1949 to update your cataloging, if our shelflist was updated at that time. ... in comparing that with the EXPAND in the file, in EXPAND for the regular NASA Thesaurus, it would be very good to put indexing terms on top of the subject indexing terms that are already there, just for completeness. I agree we need to have something out there on the aerospace database. It seems logical to me. Right now it takes a very persistent expert user. Not just an expert user. I've got 3 experts in my building. One of them has great persistence in digging through this material. If not, forget it. You're just not going to find it. And that is especially true when you get to the mnemonics. The ones that are underlined are different. There has been some effort at CASI, "txt" was a blanket search mode -- for which I am very thankful -- that lets you search all the text fields at one time. It is somewhat helpful. However, we find discrepancies in the shelflist number and the report number and we're finding an awful lot of stuff on the cards that was tossed under miscellaneous note. Sometimes the secondary author is tossed under miscellaneous note which is a little bit upsetting. "Sub" for subject index terms. I can't even figure out why that was done and why it wasn't just the other subject mnemonic but if you have an expert searcher who is using this weekly, he'll remember these. If you have someone who is searching it monthly, forget it. And if you have an end user, he's lost. He is not going to get anything out of this file.

DIAN MARINCOLA. The reason is unfortunately a technical limitation. We didn't have a choice. You couldn't put corporate source as "co" because it doesn't go against the authority list. The same thing with subject, because the subject goes against the thesaurus. Under RECON II we have made every effort to standardize all these. We agree with you, unless you really know how to use that file, it's tough.

MARY WALSH. Even with our expert searcher, the persistent one, we went through and we did the same kind of scanning that Redstone and Langley did before I came. We were looking for one little shelflist card and we tried about 12 different ways to the report number to get it out and finally got it out because the entry is different as well. But that's getting a little ahead of myself.

CAROLYN FLOYD. I would like to point out that the restrictions are part of miscellaneous notes. Maybe that restriction should have a different field.

MARY WALSH. There's a lot of strange things put into the miscellaneous notes. An incredible amount of good information is in there. It would be nice to go back and pull it out and align it somewhere else.

SYBIL BULLOCK. Our reference people would like to have an idea if they go in and search that if they get zero hits, it's because it isn't in there, not because they didn't know how to pull it out. That's a real problem.

MARY WALSH. Well, even searching file N and file G, if they're used to that, this still demands another level. You're sitting there, you have a patron sitting next to you, and the clock is ticking away. You don't have the luxury of sitting by yourself and saying now what am I going to do. The guy gives you ten minutes and he wants it and he wants it now. And that is something I think all the centers have in common which doesn't happen, say, at CASI, is that you're sitting there with the actual end user at hand and he's panting down your neck. He's annoyed because the printer is going slow. Anything that can be done to bring it more in line with at least the other files on RECON would be a big help.

DIAN MARINCOLA. There's one other issue I'd like to mention since we're on this, and that's the fact that things like the shelflist number and report number are text searchable the stopwords are all broken up in the indexes and I question whether that really drives you crazy because if you had someone enter in a shelflist number CN 12345, unless you use phrase searching in order to put those items together, forget it. It's lost in space.

MARY WALSH. That's exactly what we were doing the other day.

DIAN MARINCOLA. I think one of the issues we want to discuss or consider is whether we want to make those valid entries or term entries the ones that are standardized so that you know what the format is and you know how to search them as opposed to having to manipulate a text field. It gives you the flexibility, because the reason we did it as text fields is that it was so inconsistent, at least if you could do enough text searching techniques you could eventually come to it.

MARY WALSH. Which does hold true if it's in the shelflist. Unfortunately if it's in the report field you're in trouble and the inconsistent field entry that we are most concerned with was things being entered either in the report field or the shelflist field and I've got a couple, the CN number for shelflist, sometimes they used, on the shelflist, CN and sometimes they used N. I think it was how they felt that day. Sometimes the shelflist number is the report number, sometimes it's not. Sometimes the shelflist is half of the report number, which is my favorite! You really don't have a clue as to where you are going to find it and it requires at least, if you are very lucky, two searches to make sure that you've got the item that you are after.

BARBARA EVERIDGE. Did those examples come from the T file?

MARY WALSH. These came right out of T and N.

BARBARA EVERIDGE. Because the one at the top is 1961 and the corporate source is NASA, the question is why is that there at all.

SYBIL BULLOCK. I did the DTIC search on this. DTIC has gone in and changed all corporate sources, there is no corporate source NACA that I could find even though there are early 1940 reports, it will have NASA as the National Aeronautics and Space Administration as the corporate source and it should not.

DIAN MARINCOLA. I think I can answer part of that question. What happened is when we went in and looked at the true NACA stuff, we did that first, and then continued through the shelf files cards drawer by drawer. One of the things you have to remember is that from 1959 to 1962 or whenever that's what we call the gap series. I think the latest one I found was 1963 but I could be wrong on that, but you will have lots of documents that were produced by NASA from that 1958 period until 1960s, early in the 1960s, and part of it you will see reports that have both NASA and NACA numbers on it because remember the organization changed its name. My point is that you will find they will eventually overlap into the G file simply because of the period of time in which that document was entered into a particular collection.

CAROLYN FLOYD. This goes back to the issue of defining what you want in the NACA collection and before entering these records we have to ask if this particular item meets certain criteria. But we also want the information, the NASA reports especially, to be at least represented in the G file. I'm hoping that none of these are applicable to the N file but at least it should be in the G file if it's a NASA dated after 1958. But again Dian brought up a valid point about the NASA and NACA report numbers for the same items. Those are some issues that will have to be solved and we'll have to come up with agreeable definitions and criteria for what actually goes into the NACA file versus the NASA.

BARBARA EVERIDGE. My understanding is the problem works both ways: there are NASA documents and what is essentially the NACA file, and there are also NACA documents that are only in files that are NASA.

MARY WALSH. The restricted documents with the unknown status, not just classified but restricted ones, and I just pulled a couple out here, one is from Wright-Patterson and it's confidential special handling, it's also 1952. The other one is also 1952 and it's an N number and got to get back there somehow.

SYBIL BULLOCK. One other problem that I found was that apparently a lot of NASA people produced special papers. In 1968 they did a compilation on a subject area, aerodynamics, and they would be stuck in those things, some of those NACA reports. The report number in the field will be the report of the package, not the report of the date of that report. It might be 1935 but the date of it is 1971 when someone put all this together in a package, some entity, so you got another problem with things being scattered. There are NACA reports that are scattered in other pieces of documents. I don't know how many but I ran across several just in scanning through.

MARY WALSH. We do have some quality control problems in the creation of this file, probably due to the speed with which it was brought up. We would like quality control, quality control, and quality control. These files are good but they're only as good as they are clean. And if the files are not clean, not only will it be tough for the NASA in-house personnel to use them, it's going to be impossible to sell these on the market. I hate to say this because I know it's a lot of money but we have got to go back and clean up the messes that were made 15, and 20 years ago. Other than that, I can second what Carolyn said about the end users' wants. We have been spending the past year and a half going out to all of our end users at meetings and small groups and telling them what libraries do which is a new thing for us to do, asking them what they want and telling them what our plans are. The two things that have uniformly made them sit up and their eyes twinkle are remote access to their office which is the first thing that they want and second when we talk about preserving the NACA documents which surprised me cause I thought that only the old guard, only the people that were here when it turned into NASA, would be at all interested in that. Now it's across the board. Researchers are coming in from MIT and CalTech, they know too, what these documents are worth. They are truly unique and we are not doing our job. We are simply not doing our job or keeping them alive. Until three years ago, we had open access at Ames. The reports have walked off. I may not even have it in the center, some individual probably retired and took it home. We don't have the staff to go do a full inventory and compare it to our shelflist. I'm trying to get college interns to do that. But we'll see. But if we don't get some action plans out of this meeting today, there's something seriously wrong. I hope we walk out of here with a full action and little subcommittees and everything like that.

JOE GIGNAC. Excuse me, could you hold up that document, the ragged document. What is the date on that document?

MARY WALSH. This is 1936 and this is 1929.

JOE GIGNAC. And the report number?

MARY WALSH. This one is TR-570 and this one is TR-320.

JOE GIGNAC. I think you will find too that at CASI we not only have one copy, we may have as much as ten copies of some of these.

(Note: Subsequent to this meeting the shelf stock at CASI was checked to determine if the two NACA documents were available. We found that we had seven (7) stock copies of TR-570 and only a xerox copy of TR-320 in a case file. The xerox copy was produced by NTIS in 1969, apparently to satisfy a request from CASI. NTIS may have the original document.)

MARY WALSH. It would be nice. I found out about six months ago from the only employee who has worked in my library for over 7 years at my library is thatabout 15 years ago we started running out of room so they sent a whole passel of our documents up to the Federal Records Center. They sent the duplicate NACA documents up there. I don't expect to ever see them again.

JOE GIGNAC. Another point too is that in the past ten years, some of the centers have shipped in pallets full of documents because they had no room to store them. Some of these documents we have been able to go through to determine if we already had a case file copy, but there are still some remaining that haven't been touched and that is a resource problem.

MARY WALSH. It's also a problem of actual disintegration. We don't even have humidity in California and our documents are falling apart. I've been trying for five years to get these things put into archival files and all the researchers know the value. I can't get management to give me the money and I'm not even talking a lot, I'm talking $10,000. I don't know if anybody else is having better luck than I am in preservation but I think the original documents have to be kept somewhere and not sent around for a library loan but actually kept as a resource. We are going to have to make some kind of commitment to devote to inter-library loan photocopying or, better, my idea is to make a copy on buffered paper, on acid-free paper.

CAROLYN FLOYD. Some of the NACA reports have been reprinted in recent years and one example is a report that was done by the Ames staff on equations and charts for

compressible flow. It is still good information and this is still further evidence of the value of this collection and we have to remain in charge of it.

JOE GIGNAC. Through Ms. Del Frate's efforts, the Hartford Public Library is going to ship to CASI about 58 linear feet of NACA reports. Now we are not going to refuse them, but we have a storage consideration too.

BARBARA EVERIDGE. Mary had mentioned leaving today with an action plan. I would love to do that. I don't know whether we would have enough time to get as much detail as I'd like but those of you that are interested in a particular aspect, one of the things that we are going to have to talk about is what data element should be in the database, how should we format those, what kind of standards could we use. The size of the group here shows a lot of interest in the project overall. What I'd like to do is break up and have the small group of people who are willing to work together in one particular aspect of this with Ruth to come up with a recommended data format for records and so forth and address some of these issues. If we can get a list of issues and a list of volunteers who are willing to take an issue and come up with some kind of action plan after this date, I think that would be a significant contribution to this project by the end of the day. If you are interested in serving for instance on a subcommittee to address the data definition issue, that kind of thing, make a heading, put your name down and we'll go from there.

NACA DOCUMENTS - AVAIALABILITY AND PRESERVATION - Ms. Dian Marincola, NASA Center for AeroSpace Information (CASI)

As one of the managers with responsibility for document request processing at CASI I have a keen interest in the NACA document collection. I knew about the shelflist cards, I knew about the difficuly in trying to search the online files, and I knew the problem of try to locate the older NACA reports. I also looked at it from an availability point of view. By availability I mean that the person who is in the process of not only answering reference questions but actually physically transferring a document to another individual for ownership of the document, or at least that copy of it. I take a slightly different look at it than a librarian would because I'm not in the business of lending, although occasionally we do, we do honor inter-library loans to centers and other organizations if we can't provide you with the document. But I want to let you know where my experience is and where I'm taking this presentation. When I look at availability, I need to look at five issues. The first one of course is the one we've been discussing all morning, which is collection definition. When I went back into the collection, I asked what's supposed to be here and what am I supposed to have? After that, it led me to the second issue. That is CASI holdings. What do we have. What subset of the universe do we have? -- which leads me to the third issue, which is, if we don't have it then who does. Which leads to the fourth issue which is well if we have it, who can we give it to or supply it to. And then beyond that it's the format. Not only in what format do I have it, but what format can I exchange with someone else. There's certainly a key

to availability, a key to preservation. What are you going to preserve, what do you want to put out on CD-ROM etc. And I have some figures for us to take a look at. And I made some gross generalizations. My gross generalizations were: you have NACA and non-NACA. This is a two-part graph. Let me explain to you some of these figures because I was really excited about this. One of the things I always wanted to know was how many TMs, TRs, and TNs were issued because that logically would tell me my starting point of how many I should have, but that's not all the issue. These figures which match up with what CalTech has and submitted to UPDATA, there were 1441 NACA TNs at least in series number order issued, 1392 TRs or reports, and TNs were 4410. And I know this because I found a reference to it in the third issue of the Publications Announcements that NASA put out and it told me this was how many they issued so we can say that they are good numbers. The war reports are kind of an interesting thing. For those of you who don't know what the war reports are, they were quick distribution of reports in progress of the advanced restricted reports and advanced confidential reports and I think some other things. What I did was I found the listings that told me what they were and how many were issued so there were something like 21 issues of this wartime list and I just looked at the last numbers so I feel comfortable with these numbers. Comfortable but not absolute. The NACA RMs, I don't know. I mean I'm not really sure. This is what we had in our log books at CASI -- how many we're supposed to have or should have been issued. So these I put a little question mark saying hey do we have better figures on these? The next vu-graph continues with what I consider the NACA, again RNs, but secret from Ames, secret from Lewis, and secret from Langley. I'm not sure about those figures. I found them in the log book and that's what they said we should have but physical verification I could not do. Annual reports. You know we haven't really talked about annual reports but annual reports are really very interesting especially for this discussion. Now this is one version of the annual report and there are 44 of them issued. This is the one without the full reports entered in them so if you have a collection of annual reports, you have all the full text of every report issued by NACA. But this is even better. NACA was really good in how they reported things. In this particular volume, the 44th, which is the final report, it's really fascinating. It has in the back of it something very, very important. Somewhere in the document it has listings and what the listings tell us is in numerical order some very important things. By numerical order it gives the full title and author of every report issued by NACA during that year. It also gives us the technical notes, technical memoranda, and it also gives us something that I was really anxious to see, which is other technical papers by staff members. And this is the published literature that was not necessarily issued as a full NACA published report. So obviously we have an index. We know what should have been there. We can prepare a master listing.

JOHN WILSON. Dian, are all these included in UPDATA collections?

DIAN MARINCOLA. I don't have the UPDATA collection but numbers for the TNs, TRs, etc. coincide with this. What we also found is the aircraft circulars. In the

Goldbeck report, they report 208 but at least in our collection, we say we have 290. So if you want to consider those NACA reports or not, I don't know.

RUTH SMITH. I don't think they are labeled NACA reports.

DIAN MARINCOLA. No, but they come up as a series type when you look at that other good material but these are really just discussion points here. MPs, did anyone ever see an MP before? I was up in the stacks over the weekend pulling things out trying to prepare this bibliography and when I was up there, I pulled these papers out and some of the stuff dates back to the 1915-1916. And it's things that are presented at exhibits, or airshows in Paris or in Germany and they numbered them at least in the library and I only had a piece of it like from number 3 through number 47. I counted them and there were 30 but if you look at NACA they're really considered NACA reports considering somebody from NACA presented it somewhere. Good photographs of some of the old planes, valuable information. Do you want to distribute or do you want to archive it. I don't know. You should notice something missing from this list of formal reports and that is that there is no listing on this particular graph for the ACR advance confidential reports, the advance restricted reports, the research bulletin, and the confidential bulletins. I went to my clerk and I said this list doesn't make any sense. So I called the clerk over and I said don't you ever get requests for ACRs or CBs etc. and she said yes but we usually don't have them. I said how do know that. She said she usually looks in the log book and checks the cross-reference. So what I found buried in the clerk area, in the back of one of them I see a blue area, they show you the advanced restricted reports, the CBs etc., what their new numbers are. Whether they were issued as a TM or whether they were killed. As we look at the collection, we say what should we have in all these series, what really should be taken out because they killed it. I was hoping Langley had a better listing then we do. We didn't do that at CASI but a we have very interesting shelf arrangement. We arranged NACA usually by the report number and we can find that stuff and we can tell you very easily whether we have a casefile or stock copy. But when you get into that kind of non-NACA stuff which is this, life gets a little more complicated because they ran numbers together. Have you ever had a request for a NACA document by an N number that looks like a shelf number, N-15. Your files are usually organized to handle that because I know that in the Langley card file we have the listing in that order. That comes at least from CASI's standpoint. I don't know about the other libraries, or how the physical document was arranged on the shelf, and they merged those in with this modified Dewey decimal system. About 1950, they started using this modified version in order to file the cards so you have this mish-mash up there which is also reflected in the physical card file. All right, say it's going to match a piece, we're going to have a kind of convoluted thing so that leads us to what our approach is going to be and what you are going to operate from. About 15,420 reports excluding the ACRs and ARRs and any other collection that I didn't think of. Now I know that there is a whole list of all the collections but this really collapses most of them. I found that, too, and the references to them and I'm glad you brought that up because I forgot and we do have that listing too. There's another thing, which is a list of

NACA war time reports listed by the center they were superceded by or transferred to. In other words we have a lot of information from which to compile the master list. So maybe we can do our homework and kind of merge these lists together to try to come up with what we think is the ultimate collection based on what we know from what NACA said existed, what you say in your own collections you have, so we can say ... The non-NACA stuff, these figures are squirrely. At CASI we refer to them as NACA stuff, Langley Ns, Dewey numbers, or British R&Ms. It makes very little sense to me except that I've explained that the Langley Ns are simply what Langley reported on its card catalog cartridges to us. The Dewey numbers are simply anything that didn't have a N number that was issued with it. It had a modified Dewey number as a subject heading. The British R&Ms are simply reports and memoranda from someone over in England. They call them the NACA Paris Office. A lot of what we have there is from that NACA Paris Office. There are other listings that show us. What I have prepared is selected sources identifying NACA reports. It's a list of indexes. I did not prepare these so I apologize if it doesn't meet the particular publication standards for librarians but the information is there. What I hope to do with this is prepare an annotated bibliography because a regular bibliography isn't going to cut it because there is too much data in there. By the way, it contains lots of international sources of the NACA reports as well as things that were done domestically.

CAROLYN FLOYD. In some old documentation that is available to some people, there are definitions of those numbering series that were used especially in the non-NACA reports.

DIAN MARINCOLA. There is one in the indexes to NACA publications produced by the NASA folks and it gives you the report series, the symbol for them, how they numbered them, currently issued (yes or no based on the time of the index), the reporting scheme, how they referenced their numbers and a little blurb on how they did it. What the As, Es and Ls mean. If you ask for stock from CASI on the RMs, we're going to know it by that particular RM number that showed the year, the center, and the day and month it was published.

CAROLYN FLOYD. There are also definitions of what the N numbered items mean as well as the SNs.

DIAN MARINCOLA. I'd be really interested in getting a copy.

CAROLYN FLOYD. Yes, we do have them.

DIAN MARINCOLA. Great, because I went through about 2 cubes of papers in order to at least get this much. We need to come to a definition sometime soon. It's an action item on what we mean by the NACA document collection, what you feel you need to preserve, what you don't feel you need to preserve, or in what order you want to tackle that task, or we're going to be here next year going over the same stuff again.

GLADYS COTTER. I think the last thing you said too, the order is important because if you can identify which is the most important, you start with that and do something. Then we don't have to put everything out but do that in the second phase. But definitely think about phasing these.

DIAN MARINCOLA. The other thing too, that really cuts into preservation which I'm not really prepared to speak to but there are microfiche collections of at least the NACA reports issued by UPDATA and some of the other organizations say like MIT, saying they have microfiche backups. So the preservation part of that issued may be covered, just not for NASA itself. The next issue was what do we have at CASI. I estimate 16,000 NACA reports, about 15,000 non-NACA documents. I got that basically from the other information previous plus some things that did not show up depending how you cut NACA documents. We do have other indexes that don't really refer to a document but it might be a bibliographic citation publication itself. We have not done a physical inventory, I don't think you ever really know what is in your collection until somebody stands there and counts. In distribution limitations, let me explain to you, all I have to look at is a person who is going to supply you with it but can't give anything away. Security classifications, copyright restrictions I think are the issues we have to deal with but there may be a million more. You could put how much I know about this in relation to the NACA collection in a thimble and still have room. What I'm talking about is what has and hasn't been declassified. I have documentation as I stated earlier that that NACA Headquarters declassified the documents that were listed as classified. I have a letter on file that says that Langley did the same thing. I don't have any other letters on file. The question is who else and where else do we go from here cause you really can't proceed very far, at least in the classified material. I also question copyright and this pertains not to the NACA collection, what I'm calling the NACA series or NACA non-formal, I'm talking about the non-NACA stuff. Does this copyright still hold for the domestic as well as the international -- but I don't want to get into that because I think Tom's going to talk about it -- and other restrictions. You don't have to have a security classification on a document to make it distribution-sensitive. A lot of the documents said "NASA personnel" only but it's unclassified because that restriction still holds. And if we have to go through the current practice of getting that restriction lifted, your great-grandchildren will be holding this meeting many years from now and still going through the same issue because it's a cumbersom process and one we need to look at. The other thing I do have on file is a letter from Headquarters saying that the NACA Headquarters shelflist file has been declassified but I don't know about the other documents. The last issue is format. Media options currently available. Stock. One-to-one reproduction. In some cases we can give you blowback and in some we can give you the microfiche and let me explain why. If you look at the G file and you look at the D file, you do a very simple search just looking for NACA in the report number field, you come up with approximately 1200 documents that have received full bibliographic processing at that time period. We have microfiche for those. I took a brief look at it and it's not the large format ones, we do have equipment to blow it back. We do have the fiche for them. Most of them are RMs. There are a few TMs but most of them are

RMS. So it only constitutes 7.6% of the whole collection if you are looking at 165,000 cards or something like that. Stock is degrading, which leads us to the next issue. When I tell you that it's bug-infested and that I really felt bad, I mean I was really excited going into them, looking at documents and photographs, I had to get away from it. I looked at the files themselves that they were stored in because they're only in manila folders. In some cases they're just stored vertically and we're losing a great portion of it. The question comes back to what do you want to spend your resources on in preserving and if you can buy a copy of the microfiche from somewhere does that mean that we have taken care of preservation. I love the old documents. I love the way they look and the way they feel, it's really nice to go through them. They're very well printed. There is a sense of history about them.

IRENE BOGOLUBSKY. Since you're stressing the point of the present condition, the physical condition of this, does that mean that this material has to be handled under a special environment?

DIAN MARINCOLA. I can't answer that question, Irene, but I suspect it needs to be stored in special conditions until you can make a working copy to blowback, do full text capture, scan it, etc. Some of the documents that fall into the non-NACA collection were processed by blue-print method. What we have at CASI now is all these documents sitting on our shelves. There is no controlled environment. There's another important resource which I really didn't include in all this. CASI does have a portion of the original NACA library collection, the holdings themselves. In that you will find a lot of bound reports that nobody has done a one-to-one match that may fill some of the gaps in that non-NACA material. What do you consider the issue to be? Where do you want to spend your resources and where can you get additional monies to help do it because its very, very expensive. There have been deals, where did you see that, Jean, it was Cornell and Xerox who went into an arrangement. So the corporate world is interested in doing that too.

JEAN TOLZMAN. What they did was IBM and Xerox together with a national preservation organization sponsored a project at Cornell for preserving a series of archival papers and it was billed as an experiment in document imaging.

DIAN MARINCOLA. There's money out there. The answer is just finding it. I hope all I've done is just given you some information and say at least I've got some boundaries now.. But I hope I've also opened up a lot of discussion points because there are too many things we don't know.

PAT MARSHALL. I wonder if people who bound all the TNs and TMs if they kept them in any better condition. I mean the paper is going to be the same whatever you're in but I was just wondering if .... Cause they're bound so tightly you can't always use them to copy but they might be better preserved.

DIAN MARINCOLA. Well, what we could do is cut and scan them and I did notice in the casefile copies of the annual reports that the bindings were tight on them. But it all depends again what are you trying to preserve. The paper or the information.

PAT MARSHALL. Well, the reports are on a sort of shiny coated paper if I may use that, so they may last longer.

VIRGINIA ANDERSON. The biggest problem is with the TMs. Some of those are on very bad mimeograph paper and they are actually disintegrating. And those are the translation series.

MARY WALSH. It is not just the paper. I was searching the microfilm cartridges before I came down. Some of the images are barely visible. It looks like somebody came through and erased the originals. I'm worried that if we have a major disaster and we get a flood at Langley or a fire at CASI, that because of that shelflist deteriorating, we won't be able to identify what we've lost.

JOE GIGNAC. The Washington National Records Center has a duplicate set of the Langley film collection which was released to NARA by NASA several years ago.

SYBIL BULLOCK. There is some new technology out that has not been reported anywhere. I've seen a demonstration of it that takes almost invisible microfilm and they enhance it and you can read it. Not only can you do that, you can convert it to digital form. There is someone trying to sell the government that product, they have the technology and they're not finding any buyers.

BARBARA EVERIDGE. There are other folks interested in defining what do we want to include. When I first started out I thought there was a definition, but now it has been merely determined that now we seem to have some latitude as to how we choose to define it. So if there is a group to work with Dian to come up with a definition of the collection I think that's appropriate. One of the things that I think that group could address is is it the information or is it the documents that we want to preserve. The answer to that question will lead us off in a different direction. Plus we held a group for the preservation availability. We need to talk about that.

MARY WALSH. I've asked our end users that question and they want not to see hardcopy documents, they don't trust hardcopy documents if they're not made from paper copies, so they want the hardcopy and if possible they want the original.

CAROLYN FLOYD. I can tell you, they do not want anything on microfiche. Not at all.

BARBARA EVERIDGE. If we found a good copy, even if the paper copy were in the process of disintegrating, if we could get a good copy with some degree of integrity so that what we reproduced from that was readable, that would answer the question, right.

What they're looking for is accurate information and not necessarily the original document.

VIRGINIA ANDERSON. There's a problem with the NACA reports because they are oversized and you have to reduce them and you have to do it from the original copies so you're ...we always have them copied from the fiche and nobody yet has complained.

MARY WALSH. Well, you have excellent fiche.

BARBARA EVERIDGE. Since UPDATA has fiched whatever the definition of their NACA collection is, rather than us attempting to do something for NASA, what I'm hearing is that it's high quality fiche rather than us trying to set up our own program. In our program, though, whatever we do, we can duplicate as many sets as we need in whatever media we set it up in. Whereas with UPDATA, we're tied to that $15,000 bulk.

RUTH SMITH. I was told by Herb Schlar of UPDATA that they had a minimum charge of $50 though.

VIRGINIA ANDERSON. We were very worried twenty years ago about the disintegration of this collection and they said we have to get it in a format that will not deteriorate. I contacted UPDATA to see what they would do for me. They wanted $10 a document to do them. Finally, we worked out a deal with Herb Schlar and he's made money on them and we've profited a whole lot. They're top quality all the way through.

RUTH SMITH. And he provides the diazo.

VIRGINIA ANDERSON. And I can make copies for my clients. I don't let any of mine go out, I make copies. And that's one thing, I think if you have them, you should have a duplicate.

GLADYS COTTER. Does any NASA center have that fiche?

CAROLYN FLOYD. Yes. Langley does.

SYBIL BULLOCK. What we have here is the government which invested in creating the information in the first place is now paying somebody for their information again at taxpayers' expense, is that what I'm hearing?

BARBARA EVERIDGE. I think whether we should proceed with our own program or whether we should buy multiple sets from UPDATA or some other alternatives is something that the preservation availability committee can consider.

CAROLYN FLOYD. It depends on what you are considering to be a part of the NACA collection and how much the UPDATA collection matches the definition of the collection of our other working groups.

GLADYS COTTER. The other thing you should look at is whether you could buy one set of that fiche and scan it into something if you go to full text on line.

MARY WALSH. I talked with Herb Schlar about that about two years ago, and he said that it's not as simple as simply scanning it in because of the image ... If you do put it in as the whole thing as an image, he'd have to build the search capability on there which his group wasn't prepared for because he did not see a large enough market. He could not see over a hundred groups in the U.S. buying it and for him that wasn't a big enough market. He figured he'd have to charge lots of bucks to do this.

GLADYS COTTER. If this group decides that they want to go for the full-text solution at some point, then a cheap way of doing that might be to take what is already on the fiche instead of handling falling apart documents.

SYBIL BULLOCK. It's easier to convert from fiche than it is from paper and optical format. A lot less expensive.

BARBARA EVERIDGE. Has UPDATA some kind of copyright, for want of a better word, on the fact that they have been in on this?

VIRGINIA ANDERSON. Yes.

BARBARA EVERIDGE. I mean, taking UPDATA'S microfiche and running it into what would eventually be a CD-ROM, the problem is we would be in violation of protection rights.

VIRGINIA ANDERSON. If you were to deal with him it wouldn't. He's into CD-ROM in a big way.

IRENE BOGOLUBSKY. But why should it be his imprint or whatever? The document is the original document.

PAT MARSHALL. Yes, but if we're using his film...

BARBAR EVERIDGE. But that's just a source for another kind that your making. It doesn't make any difference. You're using his products. The fact that his product is your product is incidental. Because that's like borrowing one book and xeroxing it three hundred times. It's in violation of the product that was produced by the publisher.

GLADYS COTTER. So we can take the document and get it into some optical media but we can't use the microfiche.

BARBARA EVERIDGE. We can't use UPDATA'S microfiche.

SYBIL BULLOCK. We had a discussion with our legal people about fiche like this and they said there is no real good case history yet on this. It is an issue and he said he would be prepared to defend us at any point at which we did something like that, but we had to use common sense.

GLADYS COTTER. I have a question about the committees. Is preservation and availability, are you combining the distribution statement issue or is availability different from distribution? If its not, I think you should have a distribution statement.

BARBARA EVERIDGE. No, I hadn't thought about that. This availability as far as preservation, the same thing we've been talking about, is it a paper copy we're going to distribute, where are they and how can we get it and how can we get it to people who need it.

NARA COLLECTION - Ms. Kay Voglewede, NTT

I'm going to talk a little bit about the NACA collection and its relation to NARA. NARA is the new name for NARS. I think most of us are familiar with the archive system. The National Archives Records Administration is responsible for preserving federal records on a permanent basis. We are more involved with the Regional Federal Records centers. We've identified records that have some importance and that we think should be stored for some period of time and possibly currently. We identify those records, I think NASA has records management systems, and a lot of records are identified through that system. They go to Federal Records and then ultimately, if they're to be stored permanently, then they go to the Archives. As far as the NACA collection goes, NARA now has about 5,000 cubic feet. This includes NACA reports, the non-NACA reports, and this includes foreign reports as well, and there are some others considered important background information. All these items are in the NACA collection at NARA. I'm told that NARA does have a full collection of the NACA reports except that some numbers are missing but basically they have almost the complete set. The collection that we are about to transfer to NARA is all labeled non-record material and that means that it was material that was generated outside of NASA, not sponsored by NASA. I'm not sure that that's a valid description of that. If anybody wants to argue with that I'll listen to it.

CAROLYN FLOYD. You saying non-record material... What is that?

KAY VOGLEWEDE. Just reports from say British reports or some report for instance McDonnell-Douglas may have generated.

CAROLYN FLOYD. They could be part of that NACA collection that do not have the NACA report numbers and those items are difficult to find. Is there any way we can get the authority to hold back on giving those to NARA in 1992?

KAY VOGLEWEDE. I could look into that.

CAROLYN FLOYD. Those are the reports that are difficult to find and our records indicate that all copies were destroyed except one that was held by Headquarters. Are those reports going to be retrieved or confiscated from Headquarters or where are they?

KAY VOGLEWEDE. They're at the Washington National Records Center right now.

CAROLYN FLOYD. Okay, we probably need to try to keep our hands on those.

PAT MARSHALL. But they're not retrievable from there.

CAROLYN FLOYD. You can get them from the records center but there has been a letter generated that says those reports are going to the National Archives and I can tell you that you could pay $500 to get a report back from them and it may take them six months to get it plus you have to go through channels or upper management to get authorization to recall those things.

KAY VOGLEWEDE. There are certain points I think in the agency, here or the history office, or our records management people, that can authorize access. We've tried it and don't know what the success was. I've talked to the historians that have used it. If you want to go over there and sit, that's fine but the librarians in the field that need a report for one of their users, yes there's a problem. I've talked to Dr. Richard Wood. He says that theoretically if you have the document number and the accession number and they have the report there, they can get it to you within a few days.

CAROLYN FLOYD. The experience has not showed that to be true. Plus we don't have a budget for paying $500 for a title, for each title that's needed.

KAY VOGLEWEDE. That is a question we want to raise today. What's in that collection and that's one of the things we're trying to find out, whether it's something we want to keep available and how do we want to handle all of this material. It's not just this one particular set. A thousand cubic feet, the records center already has 5,000 cubic feet. Is that material more of what we're getting ready to send. The librarians I think are the best to answer this.

JOE GIGNAC. The material that was shipped to the records center, where did those documents come from? Do you know if they're from Headquarters? Would the centers have duplication of some of these?

KAY VOGLEWEDE. They could have duplicates.

CAROLYN FLOYD. We don't know. One problem that we have run into even recently is the fact that our shelflist cards show that Headquarters has the only copy and those are the documents that went to the national records center.

KAY VOGLEWEDE. This particular batch or some other batch?

CAROLYN FLOYD. Well, this is over a period of time and some of the reports, I don't know, because you would have to physically go look at each card to determine whether Headquarters has the only copy. But that is a problem. If Headquarters is supposed to have retained a copy for the agency and they are at the Federal Records center, then NARA will come in and take them. It means that they are virtually unavailable to the users.

CAROLYN FLOYD. Gladys, do you realize that NARA officials are visiting the centers during FY91 and under public law they can confiscate anything that's thirty years old or older, which means that there's a strong potential for the NACA documents to be confiscated. And I can give you the public law number that authorizes it.

KAY VOGLEWEDE. Obviously the problems that we have with NARA and the transfer of records to NARA is the question that we need to answer and answer soon. So what I'd like to do, under the scope notes here for the preservation committee is specifically take a look at the Washington National Records Center and the NARA connection here. During this conversation I don't know whether everyone heard Carolyn's point that people from NARA are visiting the centers during 1991 and they are enpowered by public law to confiscate anything over thirty years old which of course is the entire collection.

CAROLYN FLOYD. They're visiting Langley this summer. I assume that the other centers might be on the list.

GLADYS COTTER. I knew they are going to the Center because I heard from the that they're trying to take photo collections that NASA has, that NASA uses all the time, and they're trying to take them to put in the archives. So I knew that NASA had a problem.

CAROLYN FLOYD. I think they'll be looking at everything. If they go into a vault, for instance, and I understand a team of people will be visiting so if they go into an area where there are old documents, there's nothing to prevent them -- and you cannot stop them -- from scanning your collection and they can decide whether they want to take the materials.

GLADYS COTTER. Now I understand the NARA's going through a difficult period trying to do a directory of databases because they want to know what databases are in all

the federal agencies because they are going to start archiving electronic databases. I'd be interested in doing a directory of databases so I couldn't understand why there is all this concern and what are we going to tell NARA.

CAROLYN FLOYD. On the survey, NARA is listed under one of the questions. We need to be careful because I think NARA is listed as a source. If NARA is listed as a source for NACA documents, then many people will start going there and asking to borrow reports. You may run into a situation that will backfire on us and that NARA will come to us and say well, we have all these people coming to us asking for these reports, and of course they can make money off of it. And they require that all originals go to them. So we have to be careful about making a decision as to whether we want to tell people to go to NARA.

KAY VOGLEWEDE. From what I've heard today, I think it might be useful if we set up some matrix on paper that says what each person has, someone has a list of cross-references of numbers. These people have this set in paper and that set in fiche. That might be kind of useful.

MARY WALSH. We will be doing a physical inventory after we start doing the collection definition and preservation phase. We may discover we all have unique collections that have to be replicated somehow and gotten to another center somehow. Perhaps using grad students from library school could be an approach for the inventory. Most of us are near major centers. We can get it, it's free labor. They can write it up in their resumes.

CAROLYN FLOYD. The National Archives is not mentioned in the survey but if anyone specifies the use of National Archives as a source for NACA and non-NACA documents, I would be careful about it. So it won't come out in a report and maybe we won't have people going to them for reports. Indeed it could backfire. It's a real problem. After I searched through our files and saw that letter which indicates that part of the collection is going to NARA, we really got concerned because I didn't know a decision had been made about that. And apparently it has been made.

KAY VOGLEWEDE. Do you know if that's part of the collection that you've understood that Headquarters was going to hold?

BARBARA EVERIDGE. I think part of the problem is that we don't what's being transferred and we don't know where.

GLADYS COTTER. If it turns out that the things on the list are a problem, then we need to go back and say we need to have this effort postponed until we finish this project. And I would assume they'd be reasonable about that.

BARBARA EVERIDGE. There has to be an understanding about archival records of an agency and legitimate library material. If we cleared out the libraries of everything that was thirty years old, our libraries wouldn't be worth anything.

INTERNATIONAL ASPECTS - Mr. Thomas Lahr

The nice thing about being last is that everyone this morning practically covered ..everyone mentioned something about what I was gong to say. So I'll just go over quickly, and I hope it's quickly, a brief review of the international aspects, actually it's not even a review, it's more of I'll also raise some questions and throw out some topics but like everyone else, there's no definitive answer on all of this. But as Carolyn said this morning, there's a number of sources of international documents in the NACA collection, actually this is what I like to refer to as the non-NACA collection because this is the one thing we can be sure is that the NACA documents are not the international documents. The international documents are part of the NACA collection. Now, did anybody throw out today what they thought the non-NACA collection amount was? We have anywhere from 20,000 to 200,000.

JOHN WILSON. The estimate of the NACA documents is between 15,000 and 25,000 and today Jean Anderson says she has all of them at 15,000 or 16,000, Carolyn says she has all of them, 23,000. But let's assume that it's 25,000. There's 175,000 more than at CASI but Jean has some and at Langley's library said she guessed there might be 400,000. That may mean that Langley has 200,000 more non-NACA documents.

THOMAS LAHR. I'm not going to get into the collection definition subgroups aspect yet but I was just wondering for my own purpose, because a percentage of the non-NACA collection and really what that collection is, is the world of aeronautical research from 1900 to 1958. It is everything that would have been collected by CASI and AIAA. Everything that would be in RECON, in STAR, in IAA up until the time we started producing that stuff.

DIAN MARINCOLA. It was estimated that there were 165,000 titles in the NACA Headquarters shelflist. Of those, we just guess and say that about 16,000 of them are NACA, it was NACA author, NACA report and that leads us to believe that there are about 150,000 non-NACA, at least in the NACA Headquarters shelflist collection so .... there's 165,000 titles in the cards. We say that there are 15,000 or 16,000 you have about 150,000 non-NACA titles listed in that.

THOMAS LAHR. So the international aspect is something I've been looking at. I'll tell you, it's not as easy to find any answer to that as it is to any of these other questions. Because I've been playing a little bit with the NACA file on RECON file T and of course the same quality with the international stuff falls in with the quality of the rest of the stuff and the standardization and there's just no easy way to identify everything with

a country of intellectual origin that is outside the United States. You can look up a corporate source but sometimes the country is not in the corporate source. I've got examples. It's very difficult to find out. And the other thing I have to say is everything Dian said, the international aspect of it is just a subset of it. I mean, it's really back to this collection definition as well as availability and distribution limitation and restrictions on the documents themselves. But I did some quick and novice searching and found there's a 1045 with just some permutation of Britain in the corporate source. Then I started to print out limited ones and the searching limitation statements, searching miscellaneous notes for restriction and limitations without respect to country and I would find British reports. I never would have gotten them searching England or Britain. So I found 3 or 4 thousand citations that I could immediately identify as foreign. I or someone could spend hours and days going through the other 112,000 to identify those that are of foreign origin. First I thought, we'll have to have an international subgroup, then I looked and thought we have too many subgroups here but really the collection definition should include the international aspect as well as availability and limitation restrictions. Now my own opinion is that perhaps collection definition and availability should be the same group because if you're defining the collection, are you going to define whether we collect the restricted ones or try and find availability for the restricted ones or if the collection definition excludes saying that it'll exclude anything that's restricted, then there is no need for availability. Are you only going to collect things that are publicly available that you can guarantee are publicly available; are you going to collect everything, I feel they should be the same group. That's a question for discussion. So I did a lot of searching. I found a number of countries represented: the U.S., Germany, a collection of WWII documents, the spoils of war (right Dian). And actually a lot of my assistance came from Dian and Peggie Young out at CASI and I too braved into the room, the collections, I survived because I went in quickly and came out quickly. Germany, the Netherlands, Spain, Italy, France, Australia, there's Belgium, there's other countries, Canada, there's a number of Canadians. Just looking at limitations of Canada, I found 465, 450 Italy, 659 France, 249 Australia, there's a lot more than that. That's just my quick estimate, and that's looking for only major typographical errors, not the others. So that is the international aspect of the collection because it was world-wide aeronautical research at the time and NACA collected the world just as NASA tries to collect the world. As for the availability and distribution restrictions and getting releases that will become as complicated as it will be for U.S.-- generated information. It may become a little more complicated. It may be a little easier in that we can utilize some of our foreign partners that we utilize for inputting into the databases and AIAA's foreign partners and AIAA's expertise at finding out whether some of this stuff is limited or available. Other things, if Britain is anything like the U.S., Gladys asked this morning whether we could just send out a blanket list of all these and say are they no longer classified or restricted. Well, from my DTIC experience, you can't do that because no one will acknowledge that they control the documents. No one will say they own the document.

GLADYS COTTER. Can you take contol of it then?

THOMAS LAHR. No, if it's not a NASA-authored report. Now if it were a NASA contractual report, NASA could take control of it, but if it's an Air Force report.... This citation, right off of RECON, there's a contractor report by Boeing. It's an Air Force report and it's miscellaneous note just says restricted, limited and its a 1952 report. Now theoretically we could look in DTIC and see if somehow we could merge a citation with a DROL citation or query DROL somehow and find out whether the restriction has been lifted. Otherwise, the only way we find out about this is to go back to the Air Force contract and figure out who controls it now.

CAROLYN FLOYD. So you really don't know what the restriction is.

THOMAS LAHR. It was restricted by DOD.. Some of these are not limitation statements. That was an Air Force report. It might be a DROLs and DROLs would have the current status of the report if it were publicly available. So U.S. ones might be a little more easier. Here's another Air Force contract, one of a confidential, limited distribution, and it's another Boeing. So my question about limitations and restrictions is do you all at the centers maintain, if this is at NACA Langley, if you had the report, would you have noted on the report if the limitation or restriction had been taken off of the report.

CAROLYN FLOYD. Yes, and we only downgrade and remove limitations if we get the authority to do so in writing from the originating organization. We would have to have correspondence to take such an action on non-NACA reports.

IRENE BOGOLUBSKY. Do you keep a copy of that response?

CAROLYN FLOYD. Yes we do because sometimes documents are out and they may come in years later.

THOMAS LAHR. Because if I search on the T file, just restricted, and got 12,000 hits under just restricted, that's not also searching confidential and secret or limited. That's just restricted and got 12,000 hits out of 115,000. It is only the things you've gotten automatically on distribution. Because remember we're talking 150,000 to 400,000 reports. These are all the non-NACA things because we can really control the NACA stuff. This is where all the questions come in. Now for some of these former items, here's an example, they're easy to find on RECON right now. Here's a GE Company. limited by Great Britain, so I found that by searching expanding Brit as the corporate source. Here's a limited distribution document, it just says limited distribution, it doesn't say it's restricted. I picked on the British today because I knew we would have experts in the room. Is limited distribution a British restrictive statement? Of the current ones though. How about the ones from 1914 to 1950? There are some AGARD things in here too. Some of the French are also AGARD-authored. This one was more difficult to find. This one I found by searching limited of course and here's the corporate source. English Electric Company, limited and no Britain so unless I wasn't looking for limited

documents, I wouldn't have found this as a British document. This is a "suitable British restricted" -- handle as U.S. confidential. Suitable British restricted is a recurring restriction on these British reports. British restricted is treated as as U.S. confidential. A lot of these are suitable restricted, the British ones. That was a British restricted treated as confidential. This is British confidential U.S. restricted. And this is an interesting example of the data that are collected from the cards and here it says, mail to members on subcommittee on April 23, 1943. I mean that's the interesting little stuff you find in the miscellaneous note. Sometimes it's not in the miscellaneous note, sometimes its in some other field. But it's there. Then you run across odd things. Well, they're not odd but unusual. You're thinking these are reports and things like that. Well, here's patents and patent specifications and things like that. Here's a British patent. Here's a patent spec for improvements relating to construction so the corporate source is a British patent office. The only thing I'm getting at is that what it comes down to is back to collection definition is where are these reports and are we planning to cite reports whether they're U.S. reports or foreign reports that we do not have copies of or just cite them for public knowledge and say these were published even if we cannot find these reports? And then for the international ones, there's maybe more difficulty in defining what the availability of them is and what the current status of them is. I came into this thinking this would be fun, we'll find out lots of stuff. I left CASI that day with more questions and thinking this is exciting, there are more questions than there are answers. So in summary the foreign collection of the NACA is part of what I call the non-NACA collection with the international aspect of it reflecting the international aspect of NASA/NACA collecting its reports over all the years. The questions that it raises are, do we have authority to distribute this stuff if we still have it? The other thing was the thing about all the classifieds are restricted where one time we may have had them at CASI but all the foreign classifieds, we instructed the Center to dispose of. Dian and I went merrily looking for them, we're pulling them out and one number would be missing, finally we found someone who remembered a TD from 1972 that requested them to get rid of the classifieds.

CAROLYN FLOYD. They were destroyed?

THOMAS LAHR. These were British, a block of British and Canadians which were probably the majority of the foreign ones because they were British and Canadian reports received from Langley from up until 1960.

CAROLYN FLOYD. That's what happened to those reports.

SYBIL BULLOCK. Tom mentioned the captured documents, the Germans did a lot in the area of aerodynamics and aerospace and we have that collection.
THOMAS LAHR. The other thing I question is how much of this non-NACA stuff is duplicated in other areas like that. The Air Force stuff is all going to be in DTIC. Again when they say NACA documents, are they saying the 15,000 or 16,000 NACA reports or the 150,000 to 400,000. The NACA library, it's just all aerospace, all the

aeronautics at that time. Research of the time. That's why the collection definition will be very interesting because it'll boil down to are we going to go back and recapture everything that NACA was interested in for the world or start with the NACA collections that NACA generated.

VIRGINIA ANDERSON. We needed a British document for one of our students a while back and I got the word that it was not in the NTIS collection or the NASA collection but they would try to get it from Great Britain for us and it came back restricted and we finally got it three months later and when I gave it to the student, he looked at it and says, oh, I read that in the journal that was published several years after that.

BARBARA EVERIDGE. I think this has been a wonderful discussion. It has brought out a lot of issues. It gives us a lots of things to do and I appreciate the people who have signed up for these committees. What I'd like to do in the last few minutes is to get at least a plan of action as to where do we go from here and now that the issues have been raised we have people who have volunteered to take a look at some of the sub-issues of the whole project. As I was looking at this, I thought, because we had several people in each one, if we could pick one person to try to be a coordinator -- Ruth, I'd put you in all of them, -- but if we can have one of the other folks from each group volunteer to be a coordinator, the way I think we should proceed is to kind of meet with your small group, and depending on the area that you are going to work with, either draw up a list of issues, things that you think your group should look at. If those issues are already clearly well defined, kind of set up a plan or schedule of action of what you want to do, what kinds of directions you might need from Code NTT or the other centers, and how you feel your committee needs to interact with the committees. Tom was making a point of until we decide whether or not documents from some foreign countries are going to be included in the NACA collection, there's not much point in this group going ahead. So you come up with a CPM where this group has to do their work before the work of the availability committee should kick in, because there's no point in wasting our effort.

GLADYS COTTER. Didn't I hear that there's a problem no matter what happens with that?

BARBARA EVERRIDGE. With the collection definition?

GLADYS COTTER. No, with the availability distribution. I mean no matter what we decide to take care of, isn't there still that problem because you're pulling documents people can't have now.

BARBARA EVERIDGE. That has to be answered anyway because we have people requiring access to those documents. For instance, what I see happening is, suppose we say okay, we want a group of British documents to be included in the non-NACA

collection which will be part of what we decide that we're going to put on CD-ROM and make available full text. Then the action becomes to go back to the British and say we have these documents with restrictions and find out who in Great Britain is in charge of declassifying them to get some kind of definitive answer and to work through those issues in order for us to be able to include that in the product we're making. In that instance, that ties in directly with the development of the CD-ROM as part of the NACA collection. If we decide we're not going to do that, there's still that availability issue.

GLADYS COTTER. The other side of that is that the availability issue of foreign documents is probably at least a two year exercise so if you wanted to go ahead and proceed with CD-ROM you probably want to go ahead with your initial CD-ROM without those foreign documents. Then you'll have a second CD-ROM produced in two years or something.

DIAN MARINCOLA. I think that does tie in with, specifically collection definition, availability and distribution, you're going to have to work hand in hand.

BARBARA EVERIDGE. Gladys made the point earlier as these groups, think about it, think about these things in phases. From my point of view as kind of a resource manager, I have to think in terms of phases because there's not going to be money to do everything at the beginning. But developing a series of CD-ROMs or for instance if we can get the definitive NACA bibliography, just the NACA-produced documents out, that might be small enough to issue on a floppy disk with a PC searching software.

GLADYS COTTER. It is not not just the money issue. I think there are credibility issues. If we really want to do something for the end user who needs it, let's do something as soon as possible to make a difference in their environment and then we can keep upgrading their environment. But I think they would rather have something in 6 or 9 months rather than something fantastic in 3 or 4 years.

MARY WALSH. To take it one step further, one of the things that's been very nice lately is the fact that we are checking that with the end users. But it would be nice if we took a little bit of time and got back to the individuals who need this and ask them if this is actually what they want and clarify their needs.

BARBARA EVERIDGE. Exactly. And what I'd like to do, when Ruth gets her initial analysis done and we see where we stand (and this is a lot of good information, we'll come back and file a report), is to take that out and say, okay these are the user requirements as we have heard them defined. Are we on the money or not. And this is something that the planning group together can take a look at. We want to do this, then we'll come for feedback, what do they want to get, and how do we factor that in. What would be the next logical step? If the feedback we get says no, this is not quite right, then we need to do a requirements validation before we proceed. But in the meantime,

those that are interested can be taking a look at some of these other issues and have them all come together so folks can be working concurrently, not sequentially.

SYBIL BULLOCK. Is everybody here in agreement that those 16,000 NACA documents need to be put in some kind of format where everybody knows where they are, has access to them? Is that absolutely critical? Does everybody agree with that? Should not that be your starting point? That is a document, a thing, a product that Gladys said can be produced in 6 to 8 months and you have a product that you know is going to be used. I know because my reference librarians told me that, that they need that. Then from there, you expand your world and you start doing your surveys as Mary said but you start with the concrete. This is something that is doable, that can be identified, that can put in some kind of format and everybody can share in that process. And you can determine whether or not you want it full text or citation. Those pieces can be determined. But that's a doable thing. And my recommendation would be that we start with that premise and then we worked these others around that process.

CAROLYN FLOYD. Are we comfortable with the definition of NACA documents? Do we think that collection is comprehensive? That 16,000 you were referring to. Is anyone absolutely sure of that?

VIRGINIA ANDERSON. In fifteen years we have never had that collection challenged.

SYBIL BULLOCK. The production of CD-ROM is not difficult. You say this is phase 1 of the NACA collection.

CAROLYN FLOYD. To give yourself some protection there. That was what I was concerned about saying this is the total thing when we may not be absolutely sure. Do you want a committee to work on the requirements for cleaning up the T file? The citation group should be able to do that.

BARBARA EVERIDGE. The citation format or the data definition or the standards, that's the scope of this particular working group, what do we want the record to look like. Do we want to use the COSATI standard. Do we want to have two subject fields, one for the whatever is in there and one to tie it to the NASA Thesaurus which is one of the things we talked about earlier today? So while that group is busily defining what the record needs to look like, this group is busily defining the content of those records. Tom, Dian, Mary, and of course Ruth is going to be on all of these committees and it's her responsibility as the subcontractor of this project to pull it altogether in a filed report. Dian, Mary, or Tom, will one of you take the lead on... Mary. About the question of definition. How about the citation format. Irene, Carolyn, Cybil, Sue, John Wilson. Somebody from the Center will also serve on that bib citation format so you can put my name down for right now but we'll volunteer someone who knows a little bit more about it.

CARL EBERLINE. We will designate a Center Cataloger, perhaps Michael Streeks to take the lead to pull this together.

BARBARA EVERIDGE. On the CD-ROM issues. We were talking a little bit about putting full text online and so forth. Tom Lahr has done some work at DTIC putting CD-ROMs out. There's a number of issues that we can be given, the technical issues, that we can begin addressing now even before we have content or format. So Tom, Jeff, Carolyn, Cybil, and Joe Langdon have all volunteered.

KAREN KAYE. I'd like to volunteer for that group as well.

BARBARA EVERIDGE. Do we have a volunteer for the lead on CD-ROM issues?

GLADYS COTTER. Alan Kuhn will be the lead.

BARBARA EVERIDGE. What I'd like to do to to kind of talk about the milestones we have already set. Ruth's study was originally set to be finished the end of February and of course this meeting was supposed to be on the 18th of January so I'm figuring by roughly the end of March, Ruth will have the draft of her formal report. But in order to make that the best product possible, what I'd like to do is get some of these groups to sign up to at least define the scope of what you're going to do, and, as I said, come up with a list of issues that you think your committee needs to address, an action plan, and what I'd like to do is, the planning committee will talk to the coordinator so that we know what it is that each subcommittee is going to work on but to set a deadline maybe like the second week in March for you to get some first cut in to Ruth so we can begin to define this animal that we're working with.

SYBIL BULLOCK. There's a STIP conference at Redstone in April. That would be a time to get a lot of people who will be there, I imagine, that's a good time to get people together that are already going to be in one place.

BARBARA EVERIDGE. I thought if we could get some kind of first cut of what the subcommittees going to do and the plan of action, then when we get together in April, we'll have the proceeds from Ruth's analysis up front plus these outlines of how we think we should proceed both from the planning committee and the individual subcommittees and we could take a look at the whole thing together and do some revision there and plan out a strategy or plan of action for the next 6 to 9 months so we can produce a usable product -- however we choose to define that -- by the end of this calendar year and define whether or not this is going to be a 2 year effort or a 12 year effort. As Gladys said, the important thing is to get a high-quality something out to the end user because that establishes the validity of the project. It also helps, not just from the Code NTT point of view, but from the centers. You know, we all worked together. We've come up with something that's useful, that's needed and that's good quality. We can all benefit from that. Then we can take our prototype as it were and ask for more money.

Are there any comments about this general approach cause I've been doing this kind of on the fly?

MARY WALSH. I know that getting budgeting is difficult here at Headquarters. Is there anything that we can do to show them, to get back to Headquarters to them that there's confidence in this process which will help us get the money.

BARBARA EVERIDGE. I don't have an answer for you right away unless you have something to say. What you can do is begin to talk about it. The fact that those that have NACA documents, who are interested in doing something with them, Headquarters is doing an agency-wide project that you support and proceed from there.

GLADYS COTTER. Actually we could draft some type of form letter that I can fax out to the centers and could have a variation set up.

GLADYS COTTER. Frankly the problem here is in building confidence in upper management. We need them to understand that what we are doing with the NACA historical collection is for the good of the Agency.

GEOFF WHORTON. Is there anything we can do with the end users? A membership is a powerful group, all of our group belong and if they read it there it's gospel. And if they see it in the journal that NASA wants to do this, needs to do this, that will gain their support.

GLADYS COTTER. Walter Blados is writing a draft three-page article about the importance of STI. We should feed this issue to him also because he'll be going over to talk to the editor. We should also include one page, after Ruth's finished with her study, as to how we found the NACA situation to be and that it is critical to NASA to have this information available to the user in a useful format.

BARBARA EVERIDGE. Are there any other comments? I'd like to thank all the presenters. You can see the amount of work that's gone in to get ready for this particular presentation. I think it's been an excellent interchange of ideas and one of the best coordinating council meetings we have had. I appreciate all attending. Please keep in touch with members of your sub-committee and please keep in touch with us because that's the way we get things done.

GLAYDS COTTER. There are two issues that have been raised that we might want to bring up at the next meeting. How about addressing quality and another issue that was raised is copyright. We run into a lot of copyright issues. Most recently we are concerned with them on translations and trying to solve that problem in particular for some Langley users.

BARBARA EVERIDGE. We'll be getting out an agenda. If there's nothing else, thank you all very much.

NACA DOCUMENTS DATABASE

PROJECT STUDY PLAN

Presented by

Barbara Everidge, NASA STIP

Ruth Smith, NASA STIP Consultant

STATEMENT OF WORK

PROJECT TITLE: NACA Documents Database Project

PURPOSE: The purpose of this project is two-fold: (1) to develop the definitive bibliography of NACA produced and/or held documents, and (2) to make that bibliography and the associated documents available to the aerospace community. This statement of work supports the first objective by providing an analysis of the NACA collection and its bibliographic records, and supports the second objective by defining the NACA archive and recommending methodologies for meeting the project objectives.

DEFINITIONS:

NACA: The National Advisory Council on Aeronautics, which existed between 1915 and 1958 and was the predecessor of NASA.

NACA document: Any document produced by and/or for NACA.

Non-NACA document: Any document held by the NACA library/libraries during the period 1915 to 1958 other than NACA documents.

NACA collection: The NACA and non-NACA documents taken together.

NACA database: A database containing bibliographic (i.e., surrogate) records of the NACA collection. The database is composed of two datasets: bibliographic records of NACA documents and bibliographic records of non-NACA documents.

NACA archive: The extant paper, microform or other media copies of the documents in the NACA collection.

BACKGROUND: The NACA collection consists of 15,000 to 25,000 NACA documents and 85,000 to 150,000 non-NACA documents. Approximately 15,000 NACA and 85,000 non-NACA bibliographic records have been entered into the NASA/RECON database to make this collection available online to users. Users have complained that there are errors and other problems in searching these NACA records. The records for a portion of the non-NACA documents are on cards at NASA's Scientific and Technical Information Facility (STIF). Some of the reports may have been declassified over the years but still carry the classified markings.

Portions of the NACA archive are available at the STIF; other documents are available from other NASA centers, the National Archives, universities and commercial enterprises. However, the number and location of the NACA and non-NACA documents extant are not totally known at this time.

NASA would like to make the entire NACA collection available to the aerospace community. Because the NACA collection is a closed set, the NACA database is a reasonable candidate for publication and dissemination on CD-ROM. Alternately or additionally, the complete NACA database could be made available online. NASA further would like to define and/or develop a NACA archive from which to provide the complete text of requested documents to fulfill the objectives of this project.

Before putting the NACA collection online and/or on CD-ROM, the quality of the database must be brought to a level acceptable to the users. To this end, this Statement of Work outlines the requirements for a study to define the effort, determine the timeframe and estimate the costs for completing the project objectives.

REQUIREMENTS:

1) Determine the number of NACA and non-NACA documents.

2) Determine the availability of bibliographic records for those documents.

3) Determine the location and availability of the documents themselves.

4) Determine the level of standardization of cataloging for those documents already cataloged.

5) Determine the user requirements for a useful NACA database including but not limited to data elements, cataloging conversions and/or standards and optimal media for dissemination of bibliographic information.

6) Determine the user requirements for a useful NACA archive including but not limited to document availability and document delivery methods and response times.

7) Recommend a methodology for developing and/or upgrading electronic bibliographic records to a level acceptable to the users (as determined in Item 5 above).

8) Estimate the level of effort, time frame and cost for completing the development of the definitive NACA database.

9) Recommend a methodology for defining and/or developing the associated NACA archive.

MILESTONES:

		ECD
1.	Develop a plan for the study	Jan 9, 1991
2.	Attend STI Coordinating Council meeting on the NACA project to discuss user requirements with attendees	Jan 18, 1991
3.	Complete survey of centers with significant NACA holdings and/or databases (Ames, AIAA, Johnson, Langley, STIF, CalTech)	Feb 1, 1991
4.	Complete user requirements survey.	Feb 8, 1991
5.	Complete analysis of available bibliographic records	Feb 15, 1991
6.	Prepare and submit draft final report.	Feb 22, 1991
7.	Submit final report.	Feb 28, 1991

DELIVERABLES:

1.	Study Plan	Jan 9, 1991
2.	Draft final report	Feb 22, 1991
3.	Final report	Feb 28, 1991

PERIOD OF PERFORMANCE: Jan 1, 1991 through Feb 28,1991.

NACA BIBLIOGRAPHIC RECORDS

AIAA STUDY

Presented by

Irene Bogolubsky, AIAA

TECHNICAL INFORMATION SERVICE

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NASA SCIENTIFIC AND TECHNICAL INFORMATION PROGRAM COORDINATING COUNCIL MEETING THURSDAY, FEBRUARY 7, 1991

NACA COLLECTION

Irene W. Bogolubsky
Senior Director, Technical
American Institute of Aeronautics and Astronautics
Technical Information Service

AIAA

Define The NACA Collection

- NACA Historical File

  Three distinct parts:

  - NACA formal series
  - Non-NACA formal series
    International
  - Material of historical value

- NACA formal series on microfiche

- Remaining "NACA" material

NACA Collection Is A Valuable Resource

- *"Air is still air"*
- *Strong, relevant basic research*

AIAA

Issues

- Completeness of the NACA collection

- Accessibility
  - Original documents
  - Records in the file

- The Future
  - Upgraded online
    RECON

    Aerospace Database

    CD ROM
    Bibliographic
    Full Text

AIAA

- Establish Action Plan

  -Establish Priorities

  -Assign responsibility

  -Establish schedule

  -Develop Standards

AIAA

NACA BIBLIOGRAPHIC RECORDS

THE OPTIMAL NACA DATABASE

Presented by

Carolyn Floyd, Langley Research Center

The Optimal NACA Database

- Objective:
  - Provide full-text retrieval of all documents (including graphics) in the NACA collection
- Definition:
  - The NACA Collection is the International Aeronautics and Aerospace material cataloged from 1915-1958
- Content:
  - Historically accurate representation of the NACA collection which includes international sources, variant document types, and subjects

Presented by Carolyn Floyd, NASA/LaRC

The Optimal NACA Database
Examples

Sources:

- United States
- Germany
- The Netherlands
- Spain
- Italy
- France
- Australia

The Optimal NACA Database Examples (continued)

Document Type:

- Technical Reports
- Journal Articles
- Translations
- Pamphlets

The Optimal NACA Database
Examples (continued)

Subjects:

- Aeronautics
- Astronautics
- Metallurgy
- Materials Research
- Optical Technology (late 50's)
- Tires
- Landing Research
- Sonic Boom
- Structures

The Optimal NACA Database

Data Elements:

- Author
- Title
- Corporate Source
- Subject Terms
- Publication Date
- Pagination
- Report Number(s)
- Shelflist Number
- Abstract
- Contract Number(s)
- Language
- Miscellaneous Notes

The Optimal NACA Database

Integrity:

- Error Free
- Consistent data entry
  - standards/guidelines

Availability:

- Recon
- CD-ROM

DEFICIENCIES IN ONLINE FILE

Presented by

Mary Walsh, Ames Research Center

DEFICIENCIES IN RECON'S AERONAUTICS BASIC RESEARCH FILE

STI COUNCIL MEETING
February 7, 1991

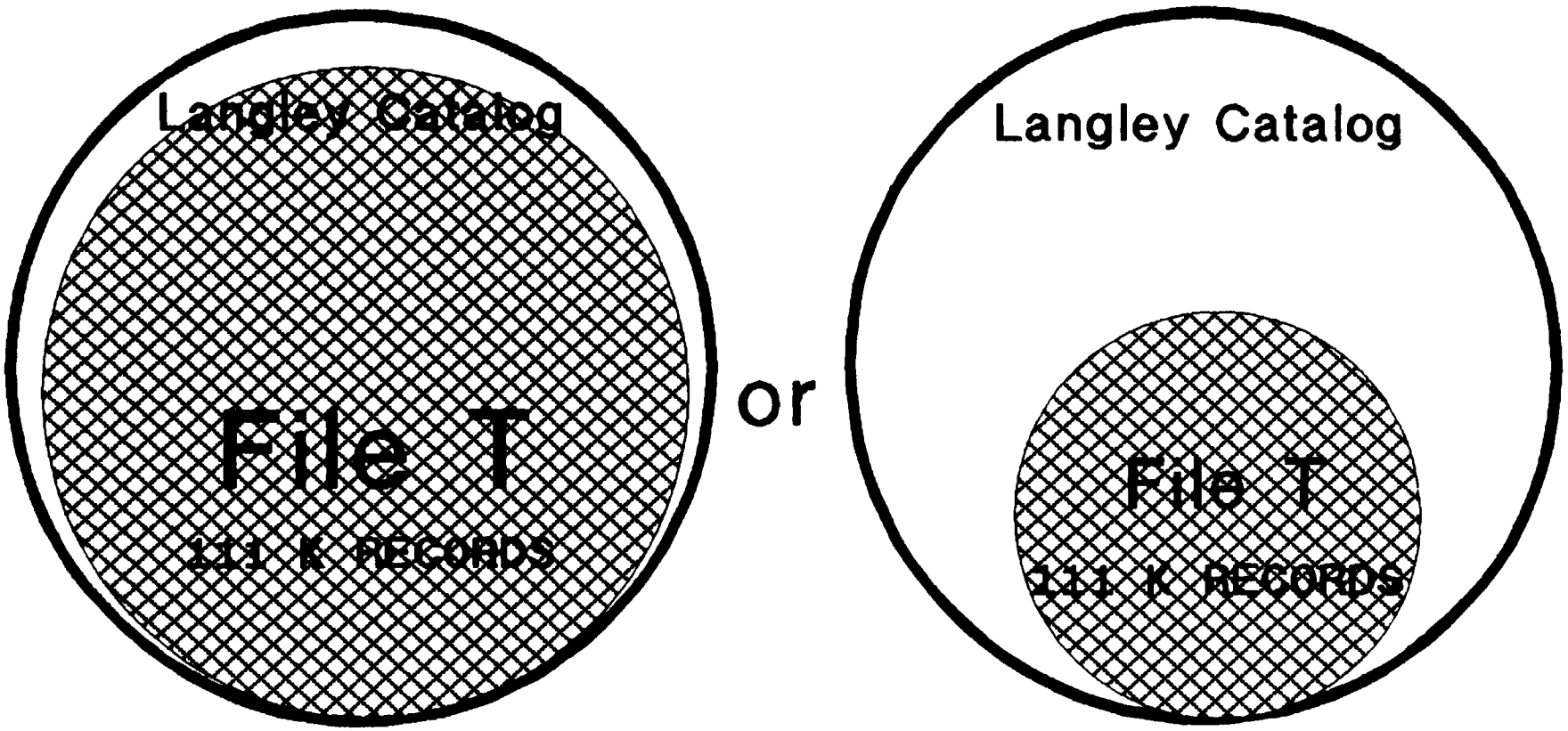
Mary Walsh

NASA Ames Research Center

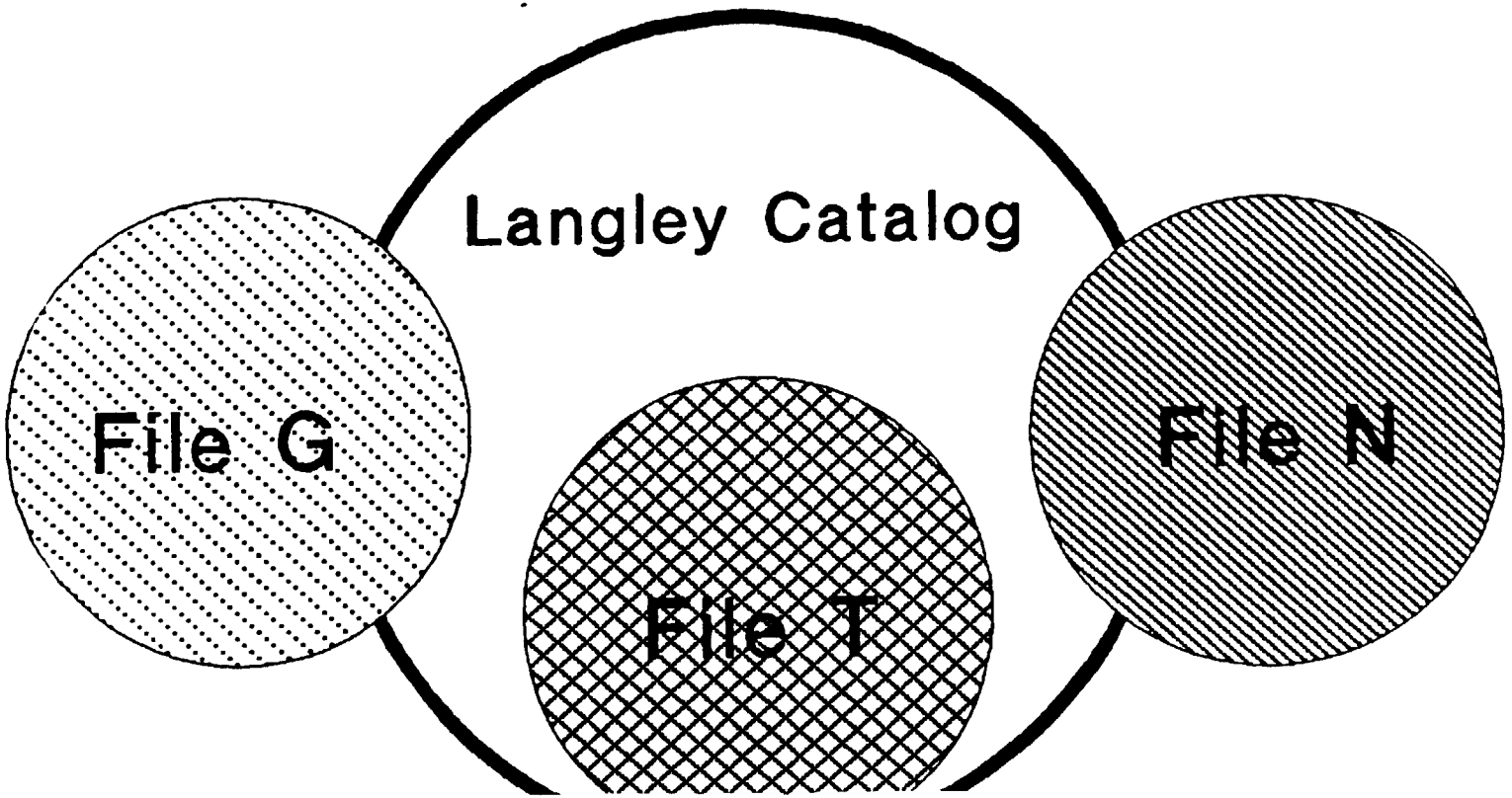
DEFICIENCIES IN RECON'S AERONAUTICS BASIC RESEARCH FILE

- COMPLETENESS OF FILE UNKNOWN
- NACA RECORDS IN OTHER RECON FILES
- INDEXING UNIQUE TO FILE
- MNEMONICS UNIQUE TO FILE
- INCONSISTENT FIELD ENTRY
- RESTRICTED DOCUMENTS' STATUS UNKNOWN
- TYPOGRAPHICAL ENTRY ERRORS

COMPLETENESS OF FILE UNKNOWN



NACA RECORDS IN OTHER FILES



INDEXING UNIQUE TO FILE

87H31140
UTTL: L'Aerotecnica of the Ministero dell'Aeronautica, Italy
SLN: 6510=AT/1940, v. 20, #3-5 (Italy)
MISC: illus.(Ital.text)
SUBJ: /Reports /Air navigation-Methods /Gliders-Jamaraki D. 1 (Jap.) /Engines-Argus As 410 (Ger.) /Engines-Hirth 512A & 512B (Ger.) /Airplanes-Construction /Carburetors-Mixture controls Automatic-Tacconi /Airplanes-General ** Aircraft ** Cygnet (Brit.) /Stressed skin-Cylinders /Equations-Elasticity

TYPE 3/2/3
87H31113 RPT#: Report M-102.3 FEBRUARY 11, 1938 PAG: 4 p., 2 tabs., figs. 1-4, 6-7 (diagrs., photos.), 1p. incl. tab. 3 (appl. 1)
UTTL: Goodyear-Zeppelin Corporation stress change recorder
AUTH: A/Donnell, L. H.; B/Schnitzer, B. J.
CORP: Goodyear-Zeppelin Corporation, Akron, O.
SLN: 5349 Goodyear Zeppelin/1
SUBJ: /Instruments for testing & research for ** aircraft ** /Instruments-Stress change recorders-Goodyear-Zeppelin

87H29972 RPT#: OTP-1959 APRIL 6, 1959 PAG: 12 p. & diagrs., photos. Preprint
UTTL: Some considerations of aircraft configurations suitable for long-range hypersonic flight
AUTH: A/Eggers, Alfred J., Jr.
CORP: NASA Symposium on Hypersonic Flow Colston Research Society
SLN: CN-70391
MISC: Presented to Symposium on Hypersonic Flow, sponsored by Colston Research Society, Bristol U., England, Apr. 6, 1959.
SUBJ: / ** Aircraft, ** Hypersonic /Airplanes-Configurations, Unusual /Spacecraft configurations, Descent /Airplanes-Range, Long /Gliders, Hypersonic /Lift & drag ratio /Spacecraft-Payload /Wing tips, Drooped /Heating, Aerodynamic-Spacecraft /Re-entry

MNEMONICS UNIQUE TO FILE

Text Fields

Search	*Field Name*
TXT	Text Fields
CRP	Corporate Name
UTP	Title
MCN	Miscellaneous Note
SLN	Shelflist Number
AX	Abstract
SUB	Subject Index Terms

Non-Text Fields

AU	Personal Author
RN	Report Number
PDT	Publication Date
non-searchable	Accession Number
non-searchable	Publication Date
non-searchable	Pagination

INCONSISTENT FIELD ENTRY

87H31230 RPT#: TM-X-575. JULY 1961 PAG: 116 p.
UTTL: Aerodynamic characteristics of several canard arrangements on an aiplane configuration for Mach numbers of 1.55 to 3.50
AUTH: A/Smith, Ronald C.
CORP: National Aeronautics and Space Administration
SLN: NASA TM X-575.
MISC: Confidential
SUBJ: /Aerodynamics, ** aircraft ** / ** Aircraft ** /Stability and control

87H29853 RPT#: Eng. Rept. 5123 TN 57-25 Contract AF 08(606)-1047> JULY 5, 1957 PAG: 19p
UTTL: First field test results of the recording optical tracking instrument (ROTI MK II)
AUTH: A/Economou, G.
CORP: Perkin-Elmer Corp. Air Force Missile Test Center
SLN: CM-6007*
MISC: General description
SUBJ: / ** Aircraft ** tracking devices-Perkin & Elmer-ROTI / ** Aircraft ** tracking devices, Optical

RESTRICTED DOCUMENTS HAVE

UNKNOWN STATUS

87H29958 PAG: 1952-loose-leaf
UTTL: Standard aircraft characteristics. Air force guide number 2, volume number 2, brown book, fifth edition
CORP: Air Force Wright Air Development Center
SLN: ~~N-70056,~~ v. 2
MISC: Confidential. Special Handling Required.
SUBJ: /Handbooks- ** Aircraft-Air ** Force /Handbooks-Airplanes /Handbooks-Helicopters /Airplanes, Cargo /Airplanes, Training /Airplanes, Light /Airplanes, Observation

87H31102 RPT#: NAVORD Rept. 1970 (NOTS 540) MAY 8, 1952 PAG: iv, 13 p., illus.
UTTL: A method of assessing air-to-air gunnery results by photographic measurement of angular separation between tracer bullets and target center
AUTH: A/Ward, Mary C.
CORP: Naval Ordnance Test Station, Inyokern, Calif.
SLN: N-18141
MISC: **Restricted**
SUBJ: /Gunfire /Photography-Ballistics / ** Aircraft ** tracking devices, Photographic /Targets, Tow /Gun controls

TYPOGRAPHICAL ENTRY ERRORS

EXPAND SUB/AIRCRAFT

REF	DESCRIPTOR	TP	OCC	TS	REF	DESCRIPTOR	TP	OCC	TS
E01	SUB/AIRCO----------	B	4	0	E21	SUB/AIREX----------	B	3	0
E02	SUB/AIRCOOLED-------	B	19	0	E22	SUB/AIREY----------	B	1	0
E03	SUB/AIRCOUPE--------	B	2	0	E23	SUB/AIRFILS---------	B	3	0
E04	SUB/AIRCRAAAFT------	B	1	0	E24	SUB/AIRFIOLS--------	B	3	0
E05	SUB/AIRCRACFT-------	B	1	0	E25	SUB/AIRFLILS--------	B	2	0
E06	-SUB/AIRCRAFT-------	B	2731	0	E26	SUB/AIRFLO----------	B	1	0
E07	SUB/AIRCRAFTDETECTOR S----------	B	2	0	E27	SUB/AIRFLOW---------	B	19	0
E08	SUB/AIRCRAFTFACTORY-	B	1	0	E28	SUB/AIRFLOWS--------	B	1	0
E09	SUB/AIRCRAFTSMAN----	B	1	0	E29	SUB/AIRFOAM---------	B	2	0
E10	SUB/AIRCRAFTSMEN----	B	1	0	E30	SUB/AIRFOFILS-------	B	1	0
E11	SUB/AIRCRAT---------	B	4	0	E31	SUB/AIRFOI----------	B	1	0
E12	SUB/AIRCRFAT--------	B	3	0	E32	SUB/AIRFOIILS-------	B	11	0
E13	SUB/AIRCRFT---------	B	18	0	E33	SUB/AIRFOIL---------	B	98	0
E14	SUB/AIRCRFTFUELS----	B	1	0	E34	SUB/AIRFOILA--------	B	1	0
E15	SUB/AIRDISCO--------	B	3	0	E35	SUB/AIRFOILD--------	B	1	0
E16	SUB/AIRE-----------	B	6	0	E36	SUB/AIRFOILLS-------	B	3	0
E17	SUB/AIREOMETERS-----	B	1	0	E37	SUB/AIRFOILS--------	B	12624	0
E18	SUB/AIRES----------	B	2	0	E38	SUB/AIRFOILS_NACA---	B	2	0
E19	SUB/AIRESEARCH------	B	104	0	E39	SUB/AIRFOILSAIRFOILS	B	1	0
E20	SUB/AIRESEARCHATS35-	B	1	0	E40	SUB/AIRFOILSCIRCULAR	B	1	0
ENTER					E41	SUB/AIRFOILSL-------	B	1	0

NACA DOCUMENTS

AVAILABILITY / PRESERVATION

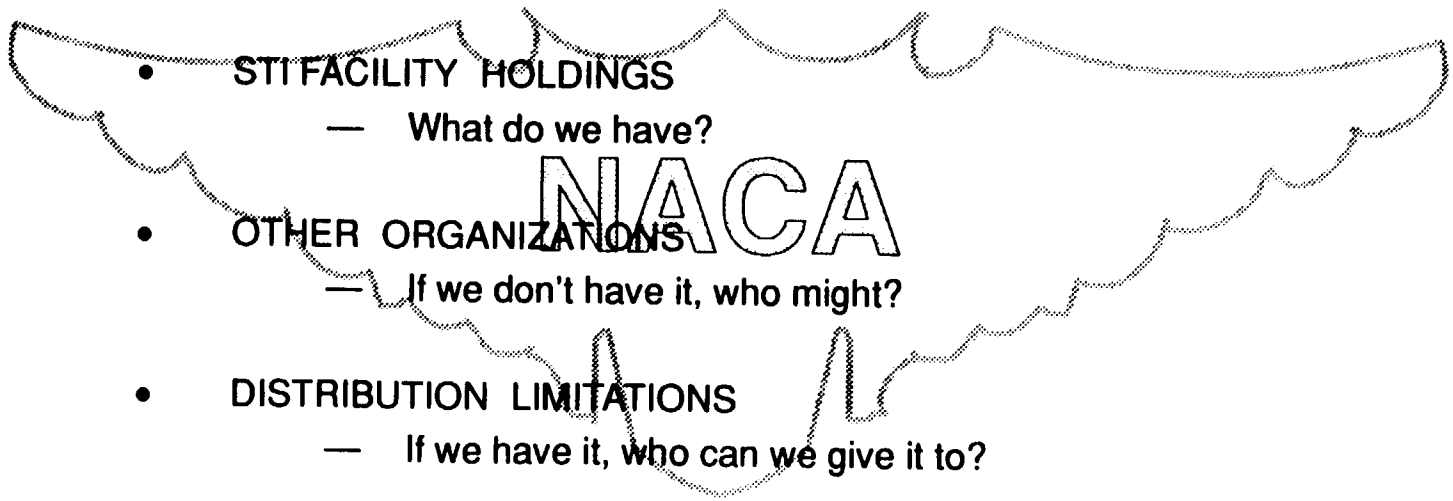
Presented by

Dian Marincola, CASI

AVAILABILITY OF NACA DOCUMENTS

MAIN ISSUES

- COLLECTION DEFINITION
  - What are we supposed to have?
- STI FACILITY HOLDINGS
  - What do we have?
- OTHER ORGANIZATIONS
  - If we don't have it, who might?
- DISTRIBUTION LIMITATIONS
  - If we have it, who can we give it to?
- FORMAT
  - In what media can we supply it?



COLLECTION DEFINITION

A questionable definition?

REPORT SERIES	ACCESSION RANGE	TOTALS
	"NACA"	
NACA-TM	1-1441	1,441
NACA-TR	1-1392	1,392
NACA-TN	1-4410	4,410
		7,243
NACA WAR REPORTS		
WRA	1-94	94
WRE	1-285	285
WRL	1-787	787
WRW	1-108	108
		1,274
NACA RMs		
RMA		1,729
RME		1,439
RML		2,840
RMH		74
		6,082

COLLECTION DEFINITION

A questionable definition?

(continued)

REPORT SERIES	ACCESSION RANGE	TOTALS
	"NACA"	
NACA RMs *(cont.)*		
RMSA		43
RMSE		81
RMSL		414
		538
Annual Reports	1-44	44
Aircraft Circulars	1-209	209
MP	1-47?	30
		15,420
	"NON-NACA"	
Langley N's		16,245
"Dewey Numbers"		1,395
British R&Ms	1-?	3,453
		21,093

STI FACILITY HOLDINGS

- Estimated 16,000 "NACA" Documents
- Estimated 15,000 "Non-NACA "Documents

OTHER ORGANIZATIONS

Organizations That Have All or Some of the NACA Documents

American Institute of Aeronautics and Astronautics, New York, NY.

California Institute of Technology, Pasadena, CA.

Datamics

Government Printing Office, Washington, DC.

Grumman Aerospace, Bethpage, NY.

Massachusetts Inst. of Tech., The Aeronautics and Astronautics Library, Lexington, MA.

NASA ARC, Moffett Field, CA.

NASA LaRC, Hampton, VA.

NASA LeRC, Cleveland, OH.

NASA STI Facility, BWI Airport, MD.

National Technical Information Service, Springfield, VA.

Princeton University, Princeton, NJ.

Rockwell International, Downey, CA.

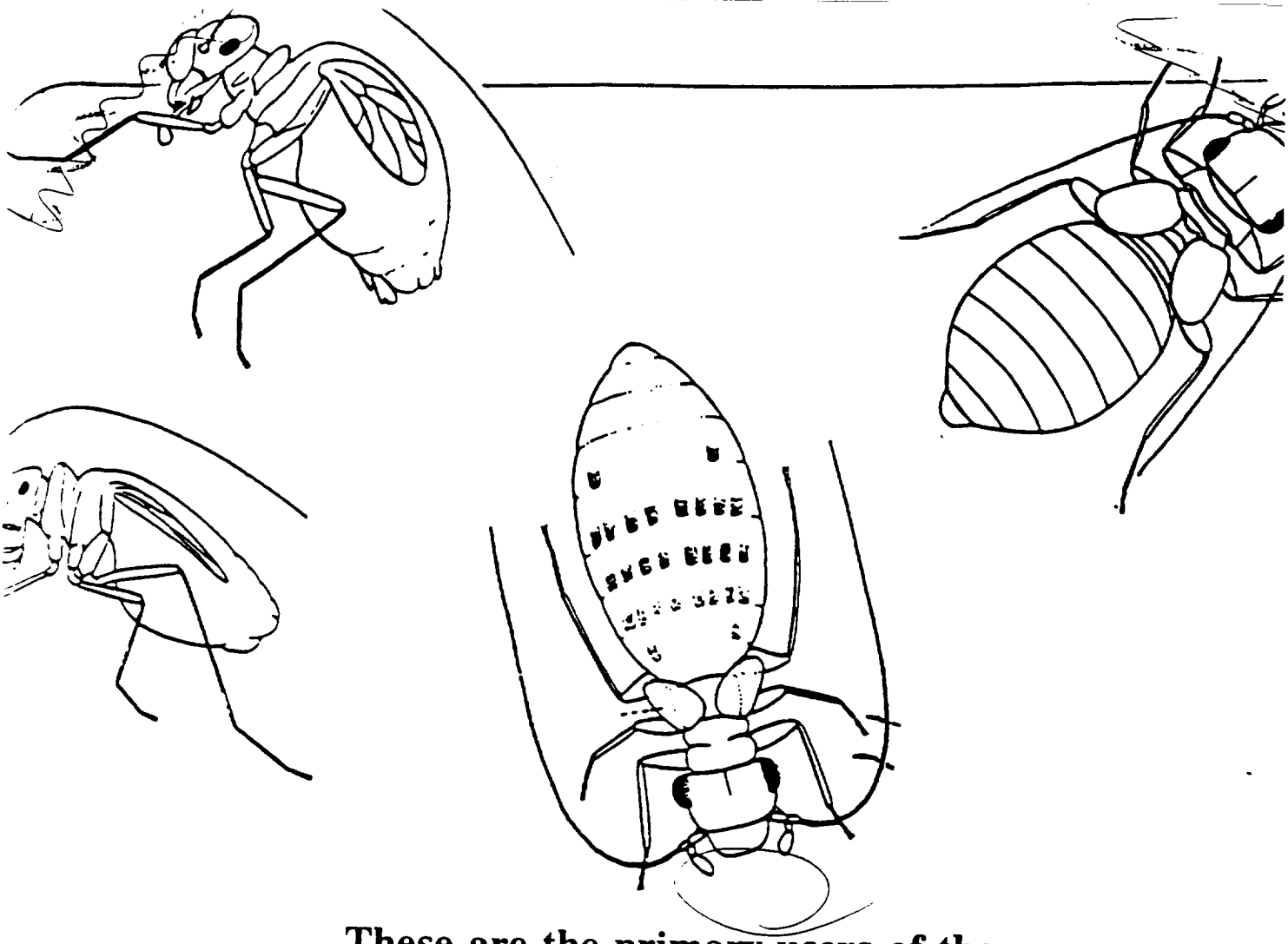
Updata, Los Angeles, CA.

DISTRIBUTION LIMITATIONS

- SECURITY CLASSIFICATIONS
  - — What has and has not been declassified?
- COPYRIGHT
  - — Is copyright an issue?
- RESTRICTIONS
  - — Do the document restrictions still apply?

FORMAT

- MEDIA OPTIONS CURRENTLY AVAILABLE
  - Stock
  - 1:1 Reproduction
  - Blowback (small %)
  - Microfiche (small %)



These are the primary users of the original NACA document collection.

Contact the NASA Scientific and Technical Information Division, Code NTT, Washington DC, 20546 to help us preserve the basics of aerospace research.

Don't let it all go to waste.